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hopeful. If the private accounts are not better than the ones published, I don't
see how the agents are to carry out their long-promised remittances—nothing
should be kept back from the information received at the office. I consider every
shareholder is entitled to it as well as the directors. The commissioners
are not men of practical experience, therefore I should attach no weight to their
reports.

JOHN FRASER & WALKER, A.B.C.—[I.] If they are stopping the roof, we will have no chance of getting the mine started. The Government might be called for to prosecute; they are exhausting their resources at the expense of development. [II.] I should not advise you either way, but there is nothing like taking your profits when you have a chance. It is the scarcity of shares that has advanced the price. Had there been no "bears" of the shares they would in all probability have remained very low.

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Original Correspondence.

A VISIT TO THE PARIS EXHIBITION—No. II.

SIR.—Coals and coke, and the multitude of products of the former, should, I apprehend, be of interest in various ways to a large portion of your readers, and I am, therefore, disposed to linger awhile amongst the cases of these substances. For they possess a remarkably fascinating influence. The histories of the manufactured portions are pretty well known to me, and I cannot help feeling proud of my birth-right as an Englishman, when I remember how much the nations of the earth owe to my country, not only for supplying them in many cases with mineral fuel, but in also showing them how this coal is to be most economically and safely excavated, and the way in which such a multiplicity of useful substances are to be obtained from it. "What began it?" was what the Scotchman said to the mischievous young bull, after, by holding on at the tail of the beast during its many rotations on various axes, and many rapid circuits made in the grazing field, and belabouring its ribs with a stout cudgel, it at last laid itself down and roared as for pity. I am inclined to make use of the same expression, but in rather a different sense, when standing before the cases of MM. Carves and Co., who exhibit models of the furnaces of the works of St. Etienne and of Besseges, and of the various products of coal, as coke, benzole, toluole, benzine, naphthaline, rectified ammonia at 22° and 28°, sulphates, chlorhydrates, and carbonates of ammonia, pour l'agriculture, l'industrie cristallisé, blanc, amorphe, &c. Yours is a very beautiful case, MM. Carves, and your coke, of the first quality, appears to be very good indeed; but I wish I could get the same price in England for coke (nearly 17. 5s. per 2200 lbs.) as you quote it at. I see that you maintain the colouring of silk to be a mean of the colouring material derivable from benzine and the acide phénique, and thus you expose it to show that the tar and other products obtained by the fabrication of coke, according to your process, are of the same properties as those obtained in the ordinary fabrication for the purifying of gas. You French people seem to me to be very wonderful inventors of economical processes, after you have been shown the way to do things; and my opinion is, if it is all true what you say, and you are realising the prices which you quote, you must indeed be making enormous fortunes within short periods of time.

We are in an age of transition, so far as the manufacture of coke is concerned. Great numbers of coke ovens, which once were in full operation at many of our railway termini, and other stations, sending continual volumes of black smoke into the atmosphere, and making dark nights to the railway traveller, appear as emblems of pandemonium, are now either in ruins or totally demolished. We aim at consuming all the heat-giving properties of coal without the intermediate and expensive operations of coke-furnaces. What a waste we seem to have been guilty of in all our coking during so many years! MM. Carves and Co. say that in all the processes of making coke the heat obtained necessary for the distillation of the coal, and the burning of the products made by this distillation, the lighting gas, tar, &c., and about one-sixth of the coal itself, are altogether a loss, much to be regretted, as these products are all of great commercial value. La Société de Carbonisation de la Loire proposes to collect these products, and to burn the gas of distillation for lighting, and as a substitute for fuel in other employments. For nine years this society has been carbonising an average of 80,000 tons of coal per annum, and producing coke suitable for all the purposes of industry. Besides, by the elaboration of the tar they obtain pitch, used in making patent fuel, also benzines of various qualities, the acid phénique, heavy oils, used in lighting the Dony lamp; by treatment of the ammoniacal waters they also obtain amber and white alkali, and the sulphates, chlorhydrates, and carbonate of ammonia. The average nett benefit which has been realised by MM. Carves and Co. during nine years on products other than the coke obtained from the coal is 1s. 9d. per ton of coal used.

Considering that France alone consumes annually 2,000,000 tons of coke, corresponding to 3,000,000 tons of coal; by the ancient process of the fabrication of coke, the loss must have been from 12,000,000 to 13,000,000 frs., supposing that for industries and agriculture pitch, benzine, manure, &c., had been imported. In effect, by saving 1-6th of the coal carbonised the benefit would be 6,000,000 frs., and for the products of the distillation of the coal and the condensation of tar, &c., may be calculated not less than 6,700,000 frs., making a total of 12,700,000 frs. (equal to 508,000 £), which annually has been sent off in smoke. This seems to me to be a subject well deserving the attention of everyone who may at present be engaged in manufacturing coke in this country.

If all the useful products of coal which have been sent off in smoke into British atmospheres by coking coal could be easily recovered, what enormous wealth would thereby be obtained; seeing, however, that, according to the Carbonisation Company of the Loire, we appear to have been making serious mistakes and shameful waste in our coking process, let us, corrected by the errors of the past, seek to amend our ways in this respect in the future. It is a fact patent to everyone that in all the vast variety of coal furnaces used for divers purposes we are continually wasting an almost incalculable amount of useful power and valuable products. In furnaces where high degrees of heat are requisite we can, of course, only expect to utilise the inflammable gases they yield, as owing to the rapid and exposed distillation of the coal nothing but steam and gases, combustible and non-combustible, can be expected as products of combustion; but could these useful fluids alone, in all cases be recovered and usefully applied, the economy thereby gained would be of valuable amount.

The coal mining companies of the basin of the Loire are well represented. The products of the collieries and their mining machinery, surface and underground, are shown by models and drawings in a most interesting and instructive manner, and are contributions from ten companies; and, as their report has it, "expresses the richness of the mines and the diversity of their products in a very considerable way." The basin of the Loire is situated entirely in the district of St. Etienne, and extends from south-west to north-east, embracing a superficial area of 20,360 hectares (1 hectare=10,000 square metres, or 2.47 acres). It is traversed throughout the entire length by the railway from Paris to Lyons by the Bourbonnais section; on one side it is in direct relation with the north-west, and on the other with the east and midland lines of France.

The production of this basin in 1865 surpassed 31 millions de quintaux métriques, equal to about one-fourth of the production of the whole of the collieries in France. The coal beds are divided into four groups, or principal systems, which, commencing with the lowest, are—1. The system of Rive-de-Gier, which, according to scientific information, extends over the entire area of the basin, and the three systems of St. Etienne, known as the lower, middle, and upper. The specimens of coal exhibited from this basin are described as being of excellent quality, and, so far as one can judge from mere external appearances, they certainly seem to be excellent coals, and the coke made from some of them is as good as ever I remember having seen. The specimens are, moreover, said to represent the two extremities and intervening qualities of all the coals of commerce.

Custom has distinguished in the basin of the Loire four principal regions—Rive-de-Gier, St. Chamond, St. Etienne, and the Western Region, found entering the concessions of Bérardière, Montrambert, Rochela-Molière, and Ferrière, and the coal exhibited appertain to these different districts. The societies comprised in the Colliery Exposition of the Loire appertain to these different districts, and are as follows:—

1. THE COLLIERY SOCIETY ANONYME (JOINT-STOCK) OF RIVE-DE-GIER.—This society possesses the large concessions of Croix, Reches, Cappe, Collon, Corbeyre, Montagne-du-Fue Gravenand, Crazagac, Gourd-Marin, Sardon of the Vercheres, of the Virrière and Chantegraine, of Frigerin, of the Combes and Egarandes, and of Marthorel, and Couzon, representing a total surface of 1318 hectares. In 1865 the society employed 1496 workmen, and produced 3,185,532 quintaux métriques of coal.

2. THE MINING COMPANY ANONYME OF ST. CHAMOND (The mining concession of St. Chamond comprises the vast extent of 3542 hectares).—In 1865 the company raised 310,565 quintaux métriques of coal, and employed 217 workmen. The company is at present employed almost entirely in scientific explorations, and for the benefit of coal mining industry. They are, in fact, seeking to discover

in the region of St. Chamond the rich coal beds explored in Rive-de-Gier. The pits have already attained the great depth of about 700 metres, and the specimens shown by the society are the names known of the series of earths they have passed through.

3. THE REGION DE ST. ETIENNE (The Mining Society Anonyme of the Loire).—This society comprises the concessions of Montsalon, Villars, Quartier Gaillard, Chana, and Cluzel, and is of the extent of 1942 hectares. They also possess other 65 centièmes in the mining concession of Beaubrun. Their out-put in 1865 was 3,308,660 quintaux métriques, and the number of their workmen 1743. Besides exhibiting several specimens of the products of their mines, they also expose a plan in relief, showing the interior excavations, so far as they have at present explored.

4. THE COLLIERY SOCIETY ANONYME OF ST. ETIENNE.—This society possesses the concessions of Terrenoire, Trenil, Méons, Bérard, Côte Theollière, Roche, and of Chaney, the total extent being 1241 hectares. In 1866 they extracted 5,268,000 quintaux métriques, and employed 1920 workmen. They show a number of specimens of coal from their pits, and a model of the surface machinery of the tenth pit they have established at St. Louis. Besides working coal, they are employed in the manufacture of small coal into blocks. Their principal work for this purpose is situated at Givors, and is of importance for its extent and the incessant improvements which are being developed there. They exhibit the principal portions of the apparatus employed in this industry, showing the perfection they have arrived at in the various departments of the work.

There are other six of these societies exhibiting numbers of specimens of coal and coke, and of models and plans illustrative of their machinery and modes of working, all of which are grouped together in an easily readable form in the Exhibition grounds. The Coal Mining Society of Beaubrun show, by plans and sections, their methods of working, and the machinery they employ at the surface and underground; also the means they employ for raising water, as by pumps and cisterns.

One feature forcibly presenting itself to one's mind when examining these models, drawings, and specimens of coal-mining products, is the natural difficulties evidently met with in the mining operations, and the ingenuity and perseverance by which these have been overcome. The mining student cannot fail to derive considerable benefit from a careful inspection of this part of the Exhibition, and I recommend any mining man who may visit this grand exposition to give some attention to the products, &c., from the coal basin of the Loire.

COLLIERY ACCIDENTS, AND SAFETY-CAGES.

SIR.—Scarcely an accident occurs in connection with colliery operations which does not bring forward a host of suggestions, made with the best possible intentions, but well known to practical men to be quite useless; and the calamity at the Washington Colliery has formed no exception to the rule,—every patentee of a safety apparatus seems to utilise an accident as a means of advertising it. The Hartley accident called forth all kinds of ingenious curiosities; the Oaks explosion did the same; and it will probably be so as long as collieries are worked. But the most remarkable fact is that the least practicable suggestions, in most cases, create the largest amount of sensation with the public. The circumstance is, however, to some extent accounted for when the case is fairly considered: the practical man, who has spent all his life in connection with collieries, is well aware of the requirements of the case, and of the difficulties and obstacles to be encountered and overcome; consequently, he weighs every part of the subject, and endeavours to find such an arrangement as will effect some good, and which, at the same time, it is possible to carry out. The knowledge of these difficulties prevents him from suggesting anything very startling, because he knows that in the attempt to carry out any design he must consider where the design is to be applied. Not so with the theoretical philanthropist: to him existing circumstances are unimportant; he knows not, in fact, of their existence, and he suggests accordingly. He aims at effect, it is true, but so long as that effect is produced upon paper he is contented, and thinks that everyone else should be so likewise. The difference between the practical and the theoretical inventor who designs for collieries is just this: the practical man is like the physician, who prescribes for his patient according to what he believes to be the nature of the disease; while the theoretical man is like the empiric, who regards it as unnecessary to see the patient, and ascertain his probable disease, but is content to prescribe one powerful medicine to all who ask his advice.

At the time of the Hartley accident, for example, one Mr. James Rae proposed an arrangement which attracted much attention, but from non-practical men only, for preventing similar accidents. He suggested that there should be fixed on each side of the main shaft tubes with ladders in them and ratchet teeth outside—the former to aid the collier in escaping in time of accident, and the latter to serve the purpose of guide-rods. Now, the absurdity of the invention is obvious. The cost of these pipes would be considerably greater than that of putting down an additional shaft. This is supposing that the tubes could be used at all as Mr. Rae suggests, which they most certainly could not, for the simple reason that we could never hope to get such tubes straight enough to guide the cage, unless we had inside flanges (which would occupy a far greater quantity of room than we should have at our disposal within the tube), or such large guides as to allow the corresponding pieces on the cages to clear the collars of the tubes. Consequently, Mr. Rae's suggestion to cast the ratchets on the outside of the tube is bad, whilst to have separate guides bolted to the tubes would be even worse, from the very large amount of room they would occupy in the pit, and the greater difficulty than at present of keeping the guide-rods (or their equivalents) in gear. With regard to his disengaging hook, which he says is so contrived as to prevent overwinding, by detaching itself from the cage as soon as the top of the pit is reached, it is the worst feature of the invention, because upon the hook detaching the cage would be left at the mercy of the safety-catches, and as these would, like all of the kind, probably fail when required, the chances are that as soon as Mr. Rae's safety disconnecting hook came into play the men in the cage would be precipitated to the bottom of the pit, and be brought up corpses.

The Washington accident has caused a rage for "keps," in addition to safety-catches and of safety disconnecting hooks, and if these savans go on much further we shall have our pits so arranged that the collier will be provided with an electric apparatus at the bottom of the pit, so that when he requires to ascend he can start the engine at surface himself. The probable result is easy to predict: he would start the engine by electricity, be drawn to surface by steam, and launched into eternity as soon as he gets there. As to the contrivances for securing safety in pit shafts, I think the remarks of Mr. R. Heckels, of Sunderland, explain the feelings of all connected with collieries. He says that "keps," if used in certain situations, as in many where he himself has them in use, give increased safety; but, he continues, in many situations, where at first sight they might appear desirable, they would be extremely dangerous. Then as to safety-cages, he knew of no cage properly so called. Let us have one, and he, amongst many, would feel much indebted to the producer of it. As it is, he is, for himself and numbers of hard-working men, whose lives are in a considerable degree intrusted to the care of himself and others, under great obligations to such men as Foudrinier and Broadbent for their endeavours to produce for us a safety apparatus by which to spare heartrendings, such as have so recently occurred in our midst; but nothing as yet, in his opinion, has been invented or discovered which in practice renders increased safety in descending or ascending a shaft, the apparatus attached to the cage, in all cases, much more likely to create than to prevent the occurrence of accidents; and as Mr. Broadbent's so-called safety-cage cannot be considered exceptional, were at a loss to have his opinion on safety-cages, as we now have them endorsed, one need only turn to the circular of Mr. Broadbent, the latest inventor of a safety apparatus for colliery cages, and read what is there stated as to averting disastrous consequences to life and property. If we apply Mr. Broadbent's remarks to his own cage, as well as to others, his observations will be quite accurate. He says:—

"Notwithstanding the numberless devices, patented and otherwise, having this object, it is all but universally admitted that none have hitherto met the difficulty, most of them being cumbrous, complicated contrivances, scarcely ever reliable in the moment of danger, and in some cases when they have acted

have only added to the mischief they were intended to prevent, by cutting or breaking the guides."

Although I would not go quite so far as those who contend that all safety apparatus are dangerous, from their tendency to cause carelessness on the part of those whose neglect they are intended to compensate for, I believe that every year we are going further back, rather than improving, in consequence of the increasing effort upon the part of the public to render compulsory the use of scientific and theoretical safety apparatus, which in the hour of need prove themselves to be worthless, and the decreasing inducement, through this interference, to employ really competent and intelligent workmen for responsible duties.—June 19.

ENGINE TESTER.

THE WORKING OF FIERY COLLIERIES WITHOUT THE USE OF SAFETY-LAMPS.

SIR.—The question as to working fiery collieries with naked lights is now very properly occupying some space in the *Mining Journal*. It appears singular that the bare idea of working a fiery colliery by means of open lights, after all the exertions of scientific men to provide a good and safe lamp, should not be treated with ridicule, or regarded with horror. In the face of the appalling and terrible massacres at Risca, the Oaks, and many other places, unfortunately too numerous to mention, it appears to be about as wise to attempt the working of a fiery mine by means of open lights as to ascend in a balloon without a valve, to navigate a ship without a rudder, or work a steam-boiler without a safety-valve. And I do honestly believe, after nearly 40 years' experience of such mines, that if all the bearings of the case were fairly looked at, the comparison I have just made will prove a correct one. We are told that a fiery mine is actually worked by means of open lights, and this is what there is nothing new under the sun, for the same experiment was tried rather extensively previous to the invention of the Safety-Lamp, with what results it is not necessary to repeat.

But a "fiery mine" is quite an indefinite term, and therefore the working of one mine by means of open lights should not be taken by any man as a precedent or authority to work any other mine in the same way. No doubt it is considered by many that to enforce the exclusive use of safety-lamps in a fiery mine is an extreme measure, but to work a fiery mine entirely with open lights is the opposite extreme, and I would submit, a most dangerous course. The only reason I can give for this opinion is, that the most complete ventilation possible, so far as the science has progressed, does not warrant the use of open lamps in all parts of a mine; the lamp ought to be used as a safeguard against sudden blowers on the whole near all goaves and old workings, and in all cases where long wall is worked, but especially when the said long wall face is proceeding to the rise. Of course, the lamp is not to be used for working where gas exists, but just as the outposts of an army are used, to guard and give warning.

Newcastle-on-Tyne, June 19.

M. E.

EXPLOSIONS OF GAS IN COAL MINES.

SIR.—I am sorry to have made an error in my letter in last week's *Journal*, by stating that Mr. Atkinson was at the inquest at Barnsley. Mr. Blackwell was the gentleman I alluded to. One of his (Mr. Blackwell's) remarks made to me when I explained the way to exhaust gas from the goaves of coal mines was, when shown a diagram—"Oh! this is one of your Welsh goaves; you know nothing about it." As a Welshman, after travelling upwards of 200 miles, in the depth of winter, with a benevolent object, and paying my own expenses, I did think that I ought to be treated with more consideration.

Blacavon, June 20.

JOHN G. WILLIAMS.

COLLIERY ACCIDENTS—OVERWINDING.

SIR.—I rather fear none of the nostrums mentioned by your correspondents come up to the mark, nor does it seem to me that any of them are as good as a good brakesman. Self-acting brakes, self-acting stop-valves, are not the thing. Let us look at what the brakesman really does. Take, for example, a pair of coupled winding engines, with the link motion. All that the brakesman is required to do is to put the link in backward or forward gear, and then open the throttle-valve as gently as he likes, and the engine goes as slowly as he pleases; shut the throttle-valve, and it will stand. Nothing can be simpler. You can go as slow as a snail, or as fast as a race-horse; but if you go as fast as a race-horse you cannot stop the engine as soon as if you went as slow as a snail; and here is the problem. If you went so slow as to be able to stop the engine instantaneously you would disturb the operations. You could not do all the work quick enough; and, although this would be absolutely safe, yet you require a nostrum which will enable the brakesman to go at a moderate speed, such as he cannot stop the cage (say) within 30 ft., and which will ensure him coming to the slow speed at such a point that it will be impossible for the cage to go over the pulleys. Now, I do not think a brake is the thing to do this, for a brake applied suddenly would run the risk of damaging the machinery; nor do I see how shutting the throttle-valve by machinery would do, unless the same load were always on. I cannot, therefore, see how either of these expedients are better than a human being for controlling a varying speed; and if a varying speed is the cause of the accidents we hear of (and who can doubt it), it would appear that nothing short of keeping to such a speed as that whenever the throttle-valve is shut the engine will stand, and that the speed should never vary—should not exceed (say) 100 ft. per minute. I do not give this as the thing, but it is near it, and it opens up the important question as to whether we should not have engines for winding men alone at each pit, going at such a speed as noted above, and which would render overwinding impossible. I can easily see such a proposal will be objected to on account of the expense. No doubt all improvements cost money; and suppose it was to add a penny or twopence on the ton, the public would be required to pay for it.

ANOTHER BRAKESMAN.

UTILISATION OF SMALL COAL.

SIR.—My attention has been drawn to a letter, signed "Commerce," in the last number of your valuable *Journal*, in which the writer makes some allusion to my patented processes for the manufacture of artificial fuel. "Commerce" has evidently very little acquaintance with my inventions, or he would not speak of my having claimed the discovery, "that it matters little whether tar or gruel is used, so long as the fragments of coal are reduced to about a uniform size, and then carefully compressed." Indeed his observations show so little acquaintance with either the subject in general, and my processes in particular, that I would advise him to obtain a little more knowledge of both before he again attempts to enlighten your readers. I would especially refer him to the several articles which have appeared in the *Mining Journal*.—Northfleet, June 19.

DAVID BARKER.

NEW INVENTIONS.

SIR.—There are men to be found whose no moral wrong in copying and using a patented invention, which, in many instances, has cost hundreds of pounds and many years' study and toil to bring to perfection; but surely no fair and honest reasoning can justify any man in robbing another of the work of his brains any more than he would be justified in clandestinely taking from him what he has gained with his hands. In making these remarks I wish it to be understood that I refer to inventions of real merit and commercial value. Amongst the patented machines which have come under my notice connected with mining matters is Blake's Crusher and Hunt's Ore Separator, both of which are acknowledged to be the best machines of their kind in use. I cannot say what time or money has been spent in bringing Mr. Blake's machine to its present state, but I find Mr. Hunt began his experiments about 30 years since, and the first model was made for him by a Mr. Todvin, tin-plate worker, in the Island of Guernsey; it was made of copper, and resembled a sort of forcing-pump, and by successive alterations and improvements he has made it not only self-feeding and discharging, but it divides the ore matter under treatment into two, three, or more different quantities, according to its specific gravity. So complete are the mechanical arrangements that it may almost be said to weigh the ore and place each quality where destined to go. Mr. Hunt took out his first patent in 1852; and, it can be seen by the specification, the machine was so constructed that it could be fed in the ordinary way,

the waste scraped off, or by leaving a place open for the waste to escape, and feeding it by means of a hopper (which is more fully described in the specification relating to his second patent); it is now converted into a continuous jiggling-machine. About three years ago Mr. Hunt's first patent was secured, a Mr. Mackworth patented a machine for washing coal, &c., said to be something similar to that of Mr. Hunt's, and, perhaps, it is from this circumstance that some parties in the North of England have infringed on his patent. For the prosperity of our mining operations, every encouragement should be given to valuable inventions, and all ought to set their faces against these fraudulent practices. INVENTOR'S FRIEND.

PETROLEUM IN GREAT BRITAIN.

SIR.—Many persons are not aware that petroleum is one of the most ancient illuminating substances known, having been used by the Egyptians, Persians, and Barmans long before the Christian era, and is now an article of considerable commercial importance in the latter country, for in British Birmah, in the neighbourhood of Rangoon alone, there are more than 90 oil springs, which not only supply the illuminating substance for the country, but from which more than 400,000 barrels are shipped annually.

Petroleum is an hydrated carbon, which has been thrown off from luminous beds of coal by the chemical agency of subterranean heat, in the form of sulphuretted hydrogen, which has acted upon the whole mass of vast interred forests, which have been thickly covered with limestone, ironstone, and other earthy substances, and, when its continuous heated action on the buried mass, has, figuratively speaking, distilled from it all the oleaginous bitumen contained therein, and, being hermetically sealed by the superincumbent formations, has driven it out into the most adjacent absorbent substances, and this substance was the free sandstone, in which it is now found in such abundance, both in the eastern and western sides of the Continent of North America, and which distillation has changed the originally bituminous coal beds into anthracite, converting the mass into an oxy-hydrate carbon, from which no smoke can be obtained in its combustion, all the matter from which smoke is formed having been driven out from the mass into a foreign body.

Natural coal, being originally wood, must as a sequence be more less bituminous, and when this ceases to be the case, that body must have undergone some great chemical change, and have been acted upon by some re-agents, which have altered its character. This change has been effected in the bituminous coal fields converted into anthracite by the sulphuretted hydrogen, assisted by the agency of steam, under a strong pressure, sufficiently great to permeate the whole mass, and by these means to drive out all the oleaginous matter. The character of the whole body so acted upon, producing what was formerly called stone-coal, which until recently was considered useless as a fuel.

It would thus appear that this chemical action must take place for the conversion of bituminous coal into anthracite, and, therefore, every deposit of that coal must have undergone the same chemical action, and by these premises we may fairly argue that petroleum could be found near or adjacent to the fields of anthracite, which form so large a feature in the mineral formation of South Wales and Ireland, and that the quantity would be in proportion to the extent of these various fields.

At this juncture, when the public attention has been so loudly called to the question of the supply of coal to be found within this kingdom, for the means of producing calorific for the generation of steam, and the recent experiments that have been so successfully tested for that purpose, at Woolwich, the importance of an investigation into the probability of the free sandstone, or other porous earths in the vicinity of the coal fields before named, for the purpose of testing if petroleum be there deposited, cannot be too strongly advocated, as there can be no physical impossibility why petroleum should not be found under the same circumstances in the British Isles as those in which it occurs in the Continent of North America. W. H. G.

HISTORY OF MINING—No. IV

SIR.—In former communications I called your attention to the interesting fact that in the pre-diluvian world the use of metals for various purposes of civilisation attained much importance. It would appear that from the very commencement of the post-diluvian period the value and necessity of metals for the use of man were recognised. The building of the Tower of Babel, according to the chronology of Archbishop Usher, was 2247 years before the birth of Christ, 49 years before the death of Noah, and a little more than three centuries after he left the Ark. It is reasonable to suppose that the great city and tower could not be erected without the use of metal implements, more especially iron. The confusion of tongues scattered men in various directions from the plains of Shinar, and necessitated their formation into distinct communities or nations. This dispersion would bring a greater area of the earth into cultivation at an earlier period than would otherwise have occurred; and as men had discovered long before the importance of metals, and must have had some knowledge of the evidences of their presence in the soil occupied by them, mining must have become very general as early as 4000 years ago. The date is about as remote as that which the sacred historian represents Abraham as very rich in silver, and gold; and there are proofs in existence that the Egyptians possessed an abundance of these metals previous to that time. Coins in various metals were in use at that period of the world's history, chiefly of gold, silver, and copper. At that period, metals were employed extensively in connection with the arts and manufactures in three great centres of civilisation, which have left no proofs that they held intercourse or communication with one another, while a certain prevailing similitude in taste and design existed. These three centres were Egypt, China, and Mexico. The remains of Egyptian civilisation convince us that the country was rich in wealth of metals whencesoever derived, and that the precious metals existed in quantities of which moderns can form no conception. It is recorded that the Greeks and Trojans obtained gold from Ethiopia, Arabia, and Ophir, the site of which is not now known. The Carthaginians obtained gold from the interior of Africa. It is probable that Spain was at that period very productive in silver. That cannot fail to strike us in reviewing the facts is that in all those countries so much metallic wealth could not have been possessed if mining had not become a very generally known art, and pursued on a grand and enterprising scale.

While in Western Asia, Eastern Europe, and Northern Africa metals were thus extensively worked, and worked with, at so remote a period, China, in the far east of Asia, was as accomplished in finding and employing mineral products. In the Western hemisphere there existed a contemporaneous civilisation, as the recently-discovered remains of great cities prove, the construction of which without a knowledge of mining, and the manufacture of implements from metals, would have been simply impossible. It seems that America possessed cities as extensive and superb as those of the Eastern hemisphere. There has as yet been no evidence discovered of the cause or causes of the decay of that grand old western civilisation, of the mighty cities that once rivalled the finest in Asia and Europe, or of the people who have perished or passed away. It is one of the most sublime mysteries in the history of the world. It is obvious that the great building era commenced soon after man set forth from Ararat, for population increased with prodigious rapidity, and it is certain that the cities then erected, so vast, splendid, and elaborate, and the monuments connected with them, could never have been created without iron, copper, lead, and other metals, so that contemporaneously with the raising of such structures the earth must have been in many places penetrated to bring up these essential commodities. The timber hewn, the stones hewn, to construct these cities could never have been brought into use with that perfect fitness which is so characteristic of well-formed iron and steel tools, and an expert use of them. It is reasonably thought that this enterprising and intelligent nation obtained copper from Lake Superior, as traces of ancient workings have been found in that neighbourhood, thickly covered by dense forest, and in which trees, having nearly 1800 rings of growth, now stand. In these workings have been found large greenstone hammers, indented in the middle for the holding of a withy handle. There have been also found there hardened copper bars formed into chisels. They were doubtless aware, and made use, of the boundless

stores of gold and silver which existed in Mexico, Arizona, the surrounding country, New Mexico, California, Nevada, Colorado, up to Lake Superior. These regions are still so rich in mineral wealth of almost all descriptions that more could be obtained from them than all the communities of man together now possess. Many old workings have been discovered throughout those countries; indeed, in nearly all nations there may be traced ruins of great cities, which could only have been erected by people acquainted with mines, with great resources, and high civilisation.

Thus, Samarcand, in Independent Tartary, 48 miles in circumference; Bactria, "the mother of cities;" the numerous cities of Hindostan; when Alexander invaded that country he found riches and civilisation, and proud and great cities. The most interesting of all ancient cities is, of course, Jerusalem; and we are made aware by the sacred history that Solomon and neighbouring princes knew how to use mineral products. Sir James Emerson Tennent avers that India supplied the gold. So vast was the treasure possessed by Solomon that according to Kito, David left for the building of the temple 889,000,000 sterling. Thus, a review of the state of the ancient world, especially in the age of great cities, shows us that metals were extensively possessed, and that mining is the father of the arts and the founder of civilisation. It has, therefore, an honourable history, and should command the attention and interest of all civilised peoples. It is to be hoped that the day will not arrive when Englishmen will be indifferent to this great and ancient industry. THOMAS SPARGO, *Gresham House, London.*

MINING PROSPECTS—REDUCTION IN DUES. THE HELSTON DISTRICT.

SIR.—Simultaneous with the weather, considerable improvements are reported to have taken place both in Wheal Vor and Penhale Wheal Vor. These very desirable changes in the prospects of these mines clearly prove that their situation is in the right place. The immense deposit of tin raised from the north lode in Wheal Vor, said to amount to upwards of 3,000,000 sterling, is about an equal distance from the rich metal lode south as the Penhale Wheal Vor lode is to the north. These great deposits of tin appear to be in the same parallel, and between the same cross lodes. Trumpet Consols is also greatly improved; in fact, this property seems to be inexhaustible in rich courses of tin, and is now on the list again as an increasing dividend-paying mine.

A little to the west of the great range of granite hills abutting on the Marazion district, a large lode has just been cut in bringing up an adit from the sea, of considerable promise. These discoveries, with an advance of 2s. per ton in tin this week, impart a much better feeling generally than existed for some time past, and, with the reduction which some of the great landed proprietors are making in their dues, will no doubt impart fresh confidence to mining. One of the oldest and most respectable firms, as stewards to several noblemen and great land proprietors, are favourable to the reduction in dues, as the best mode to encourage the success of so legitimate a pursuit as that of mining. JUNE 20. A CORNISHMAN.

THE PROGRESS OF MINING—AS A SCIENCE, AND SOURCE OF COMMERCIAL WEALTH.—No. II.

SIR.—While considering the question of the exhaustion of the metals in the veins of different countries, it is surprising how generally the number of trial mines exceeds that of the more advanced or dividend mines, not but that a number of the so-called progressive mines are unproductive. Many of the trial mines already commence to give some fruit for the outlay, although in some cases they have had to be sunk 150 or 200 fms. deep before the ore ground assumed a state of sufficient solidity to afford much substantial returns. We noticed last week that the progressive mines were about 320, and the dividend mines 80. This shows the great faith of the mining community in the undeveloped resources of the country; but, in order to have a better view of the matter, we must go beyond the bounds of our present practice, and appeal to theory to some extent. Now, if we look to the granites of Cornwall, and the porphyries and trappean rocks in such countries as Mexico or California, it will appear by no means probable that our deepest workings will have reached to anything like the depth at which the powers were seated that removed these disturbed rocks. There must be yet an immense depth of unexplored ground between our present workings and those great depths whence, from analogy, we may suppose the metals emanated; neither can we suppose that now that man has such an effectual instrument put into his hands as the steam-engine he will fail to avail himself of its power for effectually exploring these untried fields that he has at his command, notwithstanding that he has been checked and retarded, from time to time, by what the French call the difficulties of the situation. But if we give a retrospective glance at the great things he has already accomplished, I think we must acquire faith that the future of mining will be still one of progressive success. Let us review the present engine-shaft, in comparison with the ruder efforts of mankind. The engine-shaft, that some London gentlemen in the earlier stages of London mining supposed might be removed from one mine to another, will be found rather a ponderous affair to deal with. Some of our engine-shafts in Cornwall are about 1800 ft. deep. From the top to the bottom, or nearly so, runs a wood rod, or tree, of such dimensions that it contains about 20 cubic feet of timber to the fathom, or 6000 ft. of wood in one piece, of course braced together by strong iron plates, called strapping-plates. The weight of this piece of machinery alone is 120 tons. It is fixed to the nose of the beam, or bob, of the steam-engine, and it requires a cylinder of nearly 70 in. diameter, with 15 lbs. pressure to the square inch, to move it. To this great rod, which is made to travel up and down the shaft at about the rate of 80 ft. per minute, is attached all the gear for making the water ascend from the bottom of the shaft to the surface. It will readily be understood that this tree must be placed in the most convenient and commanding position in the shaft; in fact, its fixture involves a mathematical calculation, in order to surround it in the best manner by the cylinders of iron through which the columns of water are conveyed to the surface, and to reduce the set-offs or branches to which the side rods are attached to the shortest length possible. This rod is counterbalanced by columns of water acting upon pistons or plunger-poles attached to it, which further encumber the shaft, and make its arrangement a matter of peculiar ingenuity. In fact, no one unacquainted with mining could imagine the amount of foresight and skill requisite for furnishing properly a shaft of this description; and its accomplishment reflects most favourably upon the engineering talent of Cornwall. While the type of this class of work was being perfected, from 50 to 60 years ago, the engineers, led by the celebrated Trevithick, were making experiments upon the steam-engine at Herland and Wheal Alfred, situated within easy reach of Mr. Trevithick's residence, at Hayle; and gradually the high-pressure or, as it was then called, the puffer-engine was changed into the model of the present Cornish engine. But in those scientific trials locomotion was not lost sight of, though I suppose it was not dreamed of by Trevithick, Vivian, and Davey that we should, with a common locomotive-engine, such as those perfected by Mr. Robert Stephenson, convey 1000 passengers 100 miles for a cost of 13s. 2s. 6d., or something less than 3d. each, or 1d. for first-class passengers for 15 miles, and for the third-class 1d. for 40 miles. I do not suppose that those great primitive engineers ever imagined anything of this sort. Their effort was to emulate the mail coach, and much of their talent was wasted in contrivances for making locomotive-engines travel on the common roads. Yet Trevithick did succeed in establishing a locomotive railway engine, which, as a model on a ring-railway, worked very well, and this was the origin or embryo engine that represented, in a sort of vision, our present system of travelling. But when are we passengers going to derive the total benefit due to us from this splendid invention? When will the Rowland Hill of railway travelling arrive? About the same time Davey, not Sir Humphry, but Capt. John Davey, of Regally, in Gwinear, was engaged in speculation as to the formation of metals, and so well was he versed in the theory of the filling of metallic lodes that he neptune 16 mines, amongst which were Great Wheal Alfred, Wheal Neptune, Crenver and Abraham, the Herland, and Boscawen Downs, without failing in any instance of producing a dividend for the lucky shareholders. I am sorry that I cannot adduce this as a fact illustrative of the elucidation of the progress of scientific mining in the present day; yet

I have continual faith that although the progress of mining may be checked for a moment, yet its course will be a successful one.

M. F.

TREASURY CONSOLIDATED MINES COMPANY.

SIR.—It is noticed with very great satisfaction that an influential party is about to rework the important, and hitherto untried, sets of Treasury Consols. As an old inhabitant of the parish, I well remember the reasons why the mine was abandoned; not from want of copper or tin, but from inadequate capital; and it so happened that an adjoining mine was suspended, the water became too much for their engine, and the shareholders unwilling to provide further steam power, they were stopped, notwithstanding some 300 tons of copper ore were raised and sold the last month of the mine working. In addition to the Treasury Mine, they have an immense run of virgin ground to the east, known as Clowance Wood, where several lodes have been seen at the adit level, of a very promising appearance for copper ore. An engine-shaft has been put down 20 fms. below the adit, and should be sunk with all dispatch to the 50, about which point in this district copper ore is generally found in paying quantities. There is not a richer locality in Cornwall than in and around these mines—West Providence, Wheal Tremayne, Crenver and Wheal Abraham, Binner Downs, Rosewarne United, and others. Every one of these mines has been very productive, and paid immense profits. *Crowan, June 19.* A WELL-WISHER.

TREASURY CONSOLIDATED COPPER MINES.

SIR.—It is with gratification I find these mines are to be worked by an influential company, commanding sufficient capital to properly develop the whole run, which has been so celebrated for its riches. I know the ground sufficiently well to speak of its probability of becoming a lasting and a very profitable undertaking, if properly managed. I remember in the last working that the machinery was not of sufficient power to drain the mines to the great bunches of ore standing in the backs and the bottom levels, neither would the financial position of the company warrant its properly developing itself; hence the cause of suspension, and thus leaving the mine in a better position than when first started. Looking over the reports from agents of such vast experience as Capt. Charles Thomas, manager of Dolcoath and West Seton; Joseph Vivian, of North Crofty; James Pope, of Tresavean and Wheal Basset; Robert Williams, of Wheal Seton; and James Juleff, of Wheal Chiverton—all mines which are now paying dividends—together with the comparative shallow depth and the great profits that have been made in those and adjoining mines of the Treasury Consolidated, I say to the investor, the chances of success are almost a moral certainty, as also of its becoming a dividend mine at a very early period.

AN OLD MINE AGENT.

TREASURY CONSOLIDATED MINES.

SIR.—Having been in this neighbourhood, with a view to engage unemployed miners to go to the Durham coal fields, I was forcibly struck with this mining locality; and from every old miner living in the neighbourhood I was told that they hoped to see the good old days again revived in Crowan, so that their sons may again return to assist in raising out the great amount of copper ore and tin that must be in these mines. Confessing that I am but a coal miner, I shall embark in this concern, from the simple and straightforward reports I have ascertained on the spot, and on my return home shall advise my friends to do the same. S. W. W. *Truro, June 20.*

HOW TO RESUSCITATE CORNISH MINING.

SIR.—In last week's Journal I saw some remarks respecting the large amount of mineral that was formerly raised in the Marazion and St. Hilary districts, and the fortunes made by our forefathers. There are hundreds upon hundreds of acres of mineral ground within one hour's walk of the place I am now writing that have never yet been touched for mining purposes. Although there is a great outcry about the prices of minerals, while they are above the prices when very great fortunes were realised, it looks as a case without an exception that as mines get deep the quality depreciates in value. Still something must be done for us to compete with our neighbours. A person might almost think, although in the latter part of the nineteenth century, that we are governed by the laws of the Medes and Persians, yet altogether liberal views and movements are taking the places of contracted and selfish ones; the express train has taken the place of the ancient heavy wagon, and the wire of the express. No doubt hundreds of years previous to the Christian era Cornwall was the then world's depot for minerals, but that is of the past.

This is not only found in Cornwall, but in Asia and elsewhere. Copper not only in Cornwall, but in America, Africa, Australia, and, indeed, almost anywhere and everywhere. Now, we cannot alter this state of things. Tin and copper are found, and will continue to be. Our countrymen are emigrating to all parts of the world, not for the purpose of growing grapes, making wine, artificial flowers, &c., but to discover veins of minerals, which, in all probability, had it not been for the emigration of our men might remain quiet for generations to come. Only (yes, only) 100 years ago even a deposit of tin and copper ground (say) 250 miles from any shipping place, the cost of conveying it over a mountainous and rugged district on mules backs would not pay, but science and industry have, to use a figure, brought the globe within the grasp of man. No sooner is this rich deposit found than the formation of a railway is undertaken. At the same time, thousands of tons are raised, waiting for the completion of the railway, and ready for the furnace. In twelve hours it is taken to the shipping place, the ships convey it to the furnaces—or, to sum up the whole, mineral dug out of the mine one day is conveyed to the port, shipped to the furnaces, melted into pure metal, and in a few days more is in use. Free trade has taken such a hold on the Courts of Europe, that if our country were to go on its beam ends our Government would not once attempt to alter the present state of things. Then what can be done to save the country from a total collapse?

The main spring—the lords of the soil—this little article will at once show what we have to contend with—the world at large. Our miners cannot possibly be reduced lower than they really are. I do not think I am out of the way by saying the general average wages of the working miner (leaving out capitalists, inspectors, &c.) do not exceed about 48s. per month. Some who may read this may say I am too low, but I really think I am too high, for if one gets 65s., another gets less than 48s. Now, what is 48s. per month for (say) a man, wife, and three children; as there is always one five-weeks month to two of four, the average for thirteen weeks is 11s. 0s. 4d. weekly, with flour 37s. per bushel; beef, 8d. per lb.; old potatoes, 10d. per gallon; and all other things equally dear.

Again, the adventurers are almost as badly placed, as, no doubt, the majority of our mines are losing money; then the draw on the pocket must be great indeed. Very great praise is due to those who are speculating their money, and standing against the stream. Some one may say, stop the mines until you get better prices. There is a very great difference in stopping a mine, and closing the doors of a factory. As soon as a mine ceases to work, it immediately gets full of water; and if the workings are extensive, or of many years' standing, as soon as the water is pumped out, in many places it runs together, which would cost more money than to keep it going in the present state. The adventurers are doing their utmost; the miners cannot possibly do more, for if they make the least attempt to do so soul and body must certainly part.

Now, the third party, the lords,—for the sake of thousands of adventurers who are speculating their money in our country, for the sake of thousands upon thousands of miners and their hard-pressed families, let the lords of the soil re-open the doors of a factory. The old maxim scarcely ever failed—"Small profits give quick returns, and quick returns make a heavy purse." Generally speaking, the lands on the surface are useless for agricultural or even for grazing purposes; thus the advantages of reducing the dues are great indeed, and on this hangs the grand pivot—first, that their names may go down to posterity as being the lords of the soil in the country during the great mining crisis of 1866 and 1867.

Secondly, they would be great gainers; for instance, where a lord has mines, the country round for many miles is studded over with miners' cottages—each miner has built a cottage, and a piece of land. At the mine he is working for his children, as those houses are generally held on leases; then it behoves the lords to reduce the dues, for the sake of the present generation, and by their wisdom, combined with generosity, hand over to their successors (generally their own children) a property more valuable than they found it. There is another reason why they should reduce the dues, although the adventurers have been sadly mauled. When they find the lords willing to put their shoulders to the wheel, nothing will deter the adventurers from looking the worst in the face. When, then, the lords have actually reduced the dues, we'll work for another twelve months, whether or not.

Whatever I have said on this, I may say our country is in the balance, and in the other scale we have America, Africa, and Australia. Every effort should be made to prevent us from kicking the beam. Let the lords put their shoulders to the wheel; although we are but a little country, we will show we are not to be swamped, with the world against us. THOMAS TREGLOWN.

Marazion, June 19.

GUNNISLAKE (CLITTERS) MINE.

SIR.—It is but seldom we see any reference to this progressive and valuable property in the Journal, but now, with your permission, I beg you to insert the few following remarks on it, for the encouragement and, I hope, benefit of those whom it may concern. According to the past few months' and prospective future sales of copper ore, this mine will be found, at no distant date, to be one of the Cornish prizes of modern times. The Practicals, and those who have any knowledge of mining and the mine, are having their names registered in the company's books as shareholders as fast as they can get the shares; but I say to those who have borne the burden and heat of the day, as it were, by paying calls, to rest awhile, and hold tight your shares—there is a brighter day dawning for you. Several parties have bought in here largely within the last two or three weeks; Capt. James Phillips, of the Bedford United Mines, for instance, has bought nearly one-tenth of the mine. At one time Capt. Phillips held a large interest in this same mine; but he sold out before many calls were made, and now, after all calls were made that were necessary to pay for working away all the dead

AND REPORT of any QUANTIT of SLATE VEIN in NORTH WALES, and his
REPORT would include every fact FAVOURABLE or UNFAVOURABLE,
Address, Glydir View, Llanberis,

Mining Correspondence.

BRITISH MINES.

BEDFORD UNITED.—J. Phillips, June 19: The stope throughout the mine are yielding about the same quantity of ore as for some time past. The north lode in the 90 east is 3 ft. wide, carrying a leader 12 in. wide, producing saving work. The lode in the 75 east is 20 in. wide, yielding saving work; in this level west the lode is 2 ft. wide, composed of capel, spar, mundle, and good stones of ore. There has been no lode taken down in the 62 east.

BEDOL-AUR.—H. R. Harvey, June 20: The ground in the shaft is rather spare for progress, as it is so much split up by the swallow. The Seven Stars winze continues hard, but I anticipate the lode will open as we sink deeper. Jones's pitch is without alteration, except that the ground is a little softer. Edwards's pitch is looking much better, yielding from 8 to 10 cwt. of lead ore per fathom. The other points of operation are without change.

BOTTLE HILL.—J. Eddy, June 20: Main Lode: The lode in the stope in the back of the 24 fm. level is still large, 3 feet wide, and very strong throughout, saving stamps work. The lode in the tributary ground in the back of the 12 fm. level is about the same size and quality as it has been for some time past. South Lode: The lode in the back of the 12, west of the cross-cut, is about 2 feet wide; the ground has become easier for working, and the lode is richer for tin. In driving west we find the lode still small, and poor. We have commenced burning for our next parcel of tin, and we shall get on with preparing it for market as fast as possible.

BLACK CRAG CONSOLS.—J. Smith, June 20: We shall have Harriet's shaft sunk to the required depth this afternoon for the bearers and clister, and shall start to-night to cut the clister-plate. The 54, east of No. 1 cross-cut, is still producing from 15 to 20 cwt. of lead per fathom; it is a pretty-looking end for lead to-day. The 54, west of No. 2 cross-cut, is producing from 7 to 8 cwt. of lead per fathom. We are still getting some small branches and joints of lead in No. 3 cross-cut north in the 54 west. The stope is producing from 15 to 20 cwt. of lead per fathom.

BRONFLOYD.—T. Kemp, June 19: The lode in the stope under the 52 fathom level is now from 2½ to 3 tons of ore per cubic fathom; the lode is inter-mixed with spar. The stope west of winze, in back of the 53, produces 15 cwt. of lead per fathom. The stope east of the same produces 12 cwt. per fathom; lode hard for breaking. The new shaft is progressing as fast as possible. The machine-house is now completed, and the carpenters are fixing the drawing-machine. We have to-day sent out samples of 50 tons lead ore, for sale June 29.

BRYN GWIG.—S. Harper, June 20: The lode in the 102, east of engine-shaft, is without alteration since my last report. The same may be said of the lode in the bottom of the same level, working on tribute. The lode going west of the winze still continues good; the productive part is about 3 ft. wide, and worth full 3 tons per fm.; we have now about 6 ft. of horse between this part of the lode and the former level, making in all the lode about 12 ft. wide. The lode in the 90, west of No. 1 winze, is still worth full 1½ ton per fm. The lode in the winze sinking below the 90, east of No. 1 winze, is still worth 2 tons per fm., and looking a promising piece of ground. The two pitches in the back of this level (the 90 east) are without alteration since my last. The lode in the 90, driving east from No. 3 winze, is about 2 ft. wide, poor. We have not done anything in the 75 west in the past fortnight, for the reason stated in my last. I have now put a pair of men to clear up an old winze at the 66, which is 25 ft. beyond the end at the 75; by so doing we shall remove all doubt from the men's minds respecting the water lodging at the 75, beyond the forebreast. We have completed the clearing and repairing of the 66, east of the engine-shaft, up to the forebreast, and shall now commence driving the end on the course of the lode. We are still making fair progress with Brunwell's shaft. All other points continue much the same as last reported on. We sold on Thursday last 45 tons of lead ore, at 131. 11s. 6d. per ton.

CAPE CORNWALL.—R. Pryor, Wm. White, June 19: The lode in the 100 east is 2½ ft. wide, producing stones of tin; the end is letting out a quantity of water. The lode in the stope in back of the 90, east of shaft, is worth 51. 5d. per fm. The lode in the 70, west of shaft, is still producing good stones of copper ore, and has every appearance of leading to a good bunch.

CARADON AND PHENIX.—W. Richards, June 19: We have not yet intersected the No. 2 lode, in the 50 fm. level cross-cut, but we expect to do so in the course of a few days; the ground in the extreme point is stiff granite, and strongly mineralised; water issues very strongly from the bottom of the end. The engine-shaft is being sunk below the 50 by nine men, at 2d. per fathom; the No. 1 lode in the bottom of which, is about 18 in. wide, containing capel, quartz, peach, prlan, lumps of mundle, and some yellow copper ore; the indications here are encouraging at the present time.

CARADON CONSOLS.—S. Bennetts, June 18: The lode in the 90 west is from 6 in. to 1½ ft. wide, ore throughout. In the 80 west it is still small, and producing stones of ore, but not to value. The ground in the rise above the 54 has become easier close by the cross-course, and not quite so wet. In the new shaft the ground continues much the same, and the water somewhat less.

CARGOLL.—J. Grose, R. Tyzzer, June 19: The lode in the bottom of Michell's engine-shaft is 3½ ft. wide, worth for blende and lead ore 18. 6d. per fm.; this shaft is now nearly down for the 140. The 130, north from Michell's, is yielding ½ ton of lead ore per fm., a very promising level, and the stope in the back is worth for blende and lead ore 9. 6d. per fm., and the stope in the back of the south end is worth 12. 6d. per fm. The 90, south from Michell's, on the west lode, is carrying a small leader of lead. No change to notice in the north part of the mine. We sampled on Friday last 75 tons of lead ore, 130 tons of blende, and are preparing a parcel of copper ore, about 15 tons.

CLARA UNITED.—J. Davis, June 19: The lode in the 62 produces 30 cwt. of lead ore per fathom. The stope Nos. 2 and 3, in the back of the 50, are worth respectively 15 cwt. and 25 cwt. of lead ore per fathom. The stope in the back of the 40 is worth 15 cwt. of ore per fathom. The lode in the winze under the 40 produces 15 cwt. of lead ore per fathom.

CRELAKE.—William Skeewis, William Hooper, June 19: The lode in the 62 west is 5 feet wide, composed of mundle, spar, and copper ore, worth together 81. 8d. per fathom, and presenting every prospect of early improvement. The lode in the 80 west is 7 feet wide, containing mundle, spar, and copper ore, worth 18. 6d. per fathom; altogether a very fine-looking lode. For the last 18 fathoms the lode has varied in size from 3½ to 7 feet wide, and in value from 81. to 20. 6d. per fathom. The lode in the stope in the back of this level, 8 fathoms behind this end, is worth 81. per fathom. The lode in the 40 west is about 3½ feet wide, worth 18. 6d. per fathom. Since the last report we have intersected a cross-course or slide here, which reduced the lode in size from 8 feet to about 1½ to 2 feet wide; and although this was a large, strong cross-course, it did not (as is customary in this mine) throw the lode much the same, and it is now opening out wider, and increasing in value as the drive is being extended, and we hope soon to see it at its former value—50. 6d. per fathom. The lode in the rise in the back of this level is worth 30. 6d. per fathom. The 28 west is driving with all speed to form a communication with the rise in the back of the 40, which will give good ventilation for increased operations in both the 40 and 28 fathom levels.

CROWN AND WENDRON.—R. Reynolds, June 28: The lode in the shaft is 2½ ft. wide, worth about 81. per fm. for tin. The lode in the winzels 1 ft. wide, containing tin, but not sufficient to value at present.

CUDRA.—P. Peckey, A. Candy, June 19: The 142 driven west by the side of the lode 4 fms. from Walker's shaft; ground still favourable. The 130, driving west of Walker's shaft, is also in favourable ground. In cutting out the lode, west of No. 1 cross-cut, we find it very large, full 15 ft. wide, and worth for that width 20. 6d. per fm. In the stope at the same level in the back of the lode, east of the cross-cut, it is 12 ft. wide, worth 25. 6d. for that width. In the stope in the bottom of the 117, west of winze, the lode is 9 ft. wide, and worth 16. 6d. per fm. for that width. We have holed the rise in the back of the 117 to the 100, driven from the Charles Mines, and are making preparations to commence bringing away tin stuff, of which there is a large quantity broken, and which we consider will pay for taking away.

DALE.—R. Niness, June 17: We have not yet cut through the vein in the 44 fm. level cross-cut, the width of which already far exceeds anything ever seen in the mine before, but the character of the vein is precisely the same as that which produced our last bunches of ore. The bottom of the 32 fm. level north is yielding some good lead and blende.

DALE.—R. Niness, June 18: The 32 has, I should think, yielded about 4 tons of lead and about the same quantity of blende. The 44 fm. level cross-cut is not yet through the vein, which is of extraordinary size, and I believe that large masses of ore are connected with it, which from its character we may cut into at any time.

DEVON AND CORNWALL UNITED.—Thomas Neill, June 18: The stope in the bottom of the deep adit level is a little improved. At William and Mary I see no change to notice.

DING DONG.—F. Bennetts, T. Daniel, June 10: Since the last meeting we have continued to sink Greenburrow shaft; it is now about 4 fms. below the 80 fm. level. We have driven the 60, 70, and 80 fm. levels, and, although we have not discovered much tin, the ground in more than one place is certainly very kindly. We have a little tin in driving the Busa lode at the 40 fm. level, south of Greenburrow. Ding Dong: The shaft has been sunk about 4 fms. below the 80; the lode is very small, but we shall continue to sink. The 70 fm. level is very promising. The other levels are poor.—Providence: The bunch of tin in the 90, going south on the slide lode, has been very good during the last three weeks; the end at present worth 80. 6d. per fathom. The 70 and 80 fm. levels west are not producing much tin, but we look for improvement in this part of the mine.—Freddingick: We are opening tribute ground in the 110, and there are other points in this part of the mine very promising. We have now employed 91 men and 22 boys on tatwork, and 14 men and 4 boys on tribute.

EAGLEBROOK.—H. Tyack, June 15: The 80, east of cross-cut, from the engine-shaft, is now extended about 31 fathoms. During the week the men have been engaged in proving the lode to the south; we find the vein to be about 7 ft. wide, containing clay-alate, soft spar, carbonate of lime, with strong spots of copper and small strings of lead. The 30 west, on north lode, is extended about 13 fms.; the lode in the present end is 6 ft. wide, filled with masses of carbonate of lime, with good patches of lead and copper in it—good saving work for dressing; judging from the appearance of the lode in the 30, I have every reason to say we are on the top of a large deposit of lead. We are getting on with the separating of the ores as fast as possible. We have at present about 6 tons of good copper clean in the ore-house, and have a large pile of lead and copper picked on the flooring ready to crush; we intend to separate all the stuff we have on surface before we crush again. We have a good supply of water for our machinery, and the pond is quite full.

EAST BOTTLE HILL.—J. Eddy, June 20: The lode in the end, driving east of the western shaft, is from 4 to 5 feet wide, but for the present the product for tin is rather low. The lode in the stope, about 3 fms. west of the present end, is about the same size, and turning out some very good work for tin. We are getting on with our stamping and dressing as fast as possible.

EAST LAXEY.—W. H. Rowe, June 5: The lode in the 20 north is regularly improving. There is now almost a continuous leader of rich copper ore, from 1 to 3 inches wide, and the general character of the lode is highly encouraging.

EAST GUNSLAKE.—James Phillips, June 20: Since last reported on we have met with another limb of the cross-course in the 54, west of Gard's shaft, which we have just picked through, but not sufficiently to see anything of the lode west of it. This we hope to be the last we shall have to pass, therefore we look forward to an early improvement at this point. The shallow adit, and the cross-cut north of rise, in the back of the same, are without change.

EAST GUNSLAKE AND SOUTH BEDFORD CONSOLS.—James Phillips, June 18: In the 54, west of Gard's shaft, the north and south branches are verging very fast towards each other, and will form a junction at about 5 or 6 ft. west of the present end; they are of the same composition as when last reported on, and the country is a little more settled. The lode in the shallow

adit still continues large, carrying in the middle a very pretty leader, about 10 in. wide, composed of capel, prlan, mundle, and a little very good black ore. The cross-cut north of the rise is not yet through the lode, which is composed of spar and mundle.

EAST NEPTUNE.—P. Floyd, June 20: Hosking's shaft, sinking below the 15 fm. level, still continues favourable, and quite congenial for mineral. We are sinking the winze below the 15 fm. level, on the flooken part, and we do not intend taking down any more lode before we communicate with the 25 cross-cut, when we shall be well ventilated, and be in a position to stope on the course of the lode, both east and west of said winze.

EAST ROSEBURY.—C. Glasson, June 20: The lode in King's shaft, sinking below the 95 fm. level, is 1 ft. wide, worth 51. per fathom for the length of the shaft. The lode in the 95 fm. level, west of King's shaft, is very much the same as reported last week, producing stones of copper ore. In the 95 fm. level, east of King's shaft, the lode is 1 ft. wide, worth 41. per fathom. In the 85 fm. level, west of King's shaft, the lode is 8 inches wide, worth 41. per fm. We shall sample next week about 100 tons of copper ore.

EAST PROVIDENCE.—John Nancarrow, Wm. White, June 19: The ground at Borman's shaft is rather harder for sinking. The 94 west yields tin to save. The 94 east looks more promising than usual. The cross lode, in the 82 east, is making further up than when last reported on. We are making fair progress in rising above the 70. The 50 east is opening tribute ground. The pitches throughout the mine look just as they did at the setting.

EAST SNAEFELL.—W. H. Rowe, June 19: I have again arranged the bargains for another four weeks. The 15 forehead, instead of being double the distance driven, as the nature of the ground led me to expect last month, is only 3½ fms. from shaft; this, however, of course, could not be foreseen, but is more difficult at present, being necessary to go into the run of the shoot of ore. In order to be better satisfied as to this, I have decided on fixing a small solar, or platform, in the shaft, about 8 fms. above the 15, and drive in a little upon the ore passed through. I hope to be fully underway with this next week; meantime, the 15 forehead will be pushed with all possible speed, and I think we should, at any rate, come up with the ore ground in about 7 or 8 fms. from shaft, or possibly in a month's time. The new shaft measured 4½ fathoms, and is again set at 18. 6d. per fathom, the ground continuing favourable and highly mineralised.

EAST ST. JUST UNITED.—R. Pryor, R. P. Goldsworthy, R. Wearne, June 19: Eastern Mine: We hope to complete cutting the plat in the 30, at Phillips's engine-shaft, this week. The 20, south from Phillips's, on the Guide, is without change to notice.—Western Mine: We have set to open 2 fms. east and 2 fms. west from Savell's engine-shaft, in the 90, preparatory to cutting plat and fixing clister, &c.; the lode is worth 20. 6d. to 25. 6d. per fm. The lode in the 76 west is worth 41. per fm. We have communicated the 76 rise with the 62 winze. The stope in the back of the 62 west is worth 41. per fm.—Buck Lode: The lode in the 62 east without change.—Owl Lode: The 40, north from Reddipper shaft, is worth 41. per fm. The 20, north from West Buck shaft, is poor, but an improvement is expected speedily. The 20, south from Savell's, is without change. The 10, north from West Buck shaft, is worth 71. per fm. The 10, north from same shaft, on the branch, is worth 41. per fathom. The lode in the adit, north from same shaft, is worth 41. per fm. The 20 east, on the north lode, is worth 41. per fm. The lode in the 20, east of Reddipper shaft, is without change.

EAST WHEEL GRENVILLE.—G. R. Odgers, Wm. Bennetts, June 19: The lode in the engine-shaft, sinking below the 95, is 18 in. wide, composed of quartz and flooken; the latter carries good work for tin, which we think a favourable indication. The lode in the 95 east is 1 ft. wide, with a little tin and ore. The lode in the 95 west is 18 in. wide, and improving; it will now produce from 1 to 1½ ton of ore per fathom, and from the features it is presenting we anticipate a greater improvement. Two stope above this level are worth 1½ and 2 tons of ore per fm. The lode in the stope below the 45 west is worth for tin 61. 6d. per fm. There is no other change in the underground operations.

G. R. Odgers, Wm. Bennetts, June 20: We are glad to tell you that the 95 fathom level is looking much better; the lode is 2 ft. wide, worth 2½ tons of ore per fathom.

EAST WHEEL LOVELL.—Richard Quentrall, June 19: The mine continues to open out very well. Since the meeting we have sold 20 tons of tin.

EAST WHEEL RUSSELL.—J. Goldsworthy, June 18: In Maynard's cross-cut, in the 150, driving north, the stratum is easier, and better progress is being made. In Ede's cross-cut, driving north, in the 140, in the bottom of the end, the lode has been cut into about 7 ft., composed of capel, quartz, iron, elvan, and a little grey sulphuret of copper ore; the lode is very spare indeed to expect. I hope soon to be able to report better progress and prospects as we open into the lode. In the 140 east the lode has been taken down, which is 3 ft. wide, composed of capel, quartz, prlan, mundle, and produces ½ ton of copper ore per fathom; the lode presents a promising appearance. In Davey's cross-cut, driving north, the stratum is highly mineralised, and good progress is being made. In Doldge's winze, sinking below the 130, owing to an increase of water the sinking is suspended until it is drained by the level below, which is about 4 fms. behind the perpendicular of the winze. The men from the winze are removed to work the back of the 140, east of Friend's winze.

J. Goldsworthy, June 19: Homersham's Shaft: At Maynard's cross-cut, driving north in the 150, the ground is somewhat easier, therefore the progress is favourable. In Ede's cross-cut, in the 140 north, there is no change in the appearance of the north lode since reported on yesterday. In the 140 fathom level east the lode is 3 ft. wide, composed of capel, iron, quartz, prlan, and copper ore, producing ½ ton per fm., or worth 21. per fm. The stope in the back of the 140, east of Friend's winze, will produce 1 ton of copper ore per fm., or worth 41. 6d. per fm. In Davey's cross-cut, driving north in the 130 fm. level, the stratum is highly mineralised, and fair progress is being made. The tribute pitches, on the whole, are looking better.

FURSDON.—J. Collins, June 20: The lode in the stope in bottom of the 21 fm. level west is worth from 101. to 121. per fathom. The stope in bottom of the adit is yielding 81. worth of ore per fathom, and likely to improve. The pitch at the 11 east is not so good west of the winze, but much the same in value for ore to the east as for some time past. The cross-cut north at the 11 east is being driven 2 fms. 3 ft., and is in the lode, which is very kindly for making ore; it is yielding some good work for tin, but I believe there is a leader of ore further north. The ground is deeply stained with green.

FRANK MILLS.—J. P. Nicholls, J. Cornish, P. Cornish, June 19: The rise and winze from the 145 to the 130 have been communicated, which has well ventilated the bottom of the mine. The engine-shaft is now being sunk below the 145 plat, for skip pits, shoots, &c. The lode in the 145 north end is improving as we advance, and now yielding good stones of lead ore. We have resumed the 145 cross-cut to the west lode, where the ground is much mineralised, and good for progress. The 30 north, on the east lode, is unproductive for lead ore to value. The lode in the 30 north in the level is 2 ft. wide, and yielding 3 cwt. of lead ore per fm. The west lode in the 100 and 115 north having become small and disordered, we have commenced two cross-cuts, the one in the 115 to drive west, and the other in the 100 to drive east; this will prove what lodes we may have standing by the sides. The stope is yielding as follows:—A stope in the back of the 145 is yielding ½ ton; the two stope in the back of the 130, 3½ ton and ½ ton; the three in the back of the 100, each ½ ton; and the stope in the back of the 45, in the north part of the mine, ½ ton of lead ore per fm. We have intersected this with what I believe to be the south lode, in driving further in this point through the capels before reaching the ore-bearing leader part of the lode. The lode in the 50, west from Moor's winze, is 6 ft. wide, worth 8 tons of ore per fathom.

GOGINAN.—June 18: The lode in the 100, east of rise, is 5 ft. wide, very hard, yielding full 1 ton of lead ore per fathom. The two stope over this level, west of rise, are in a large lode, and yields 11 cwt. of lead ore per fathom. The stope over the same level, east of rise, is in a lode 8 ft. wide, and yields 18 cwt. of lead ore per fathom. The lode at the drift, going east of rise over the 100, is 4 feet wide, yielding 12 cwt. of lead ore per fathom. The stope over the same level, west of rise, is in a large lode, yielding 13 cwt. of lead ore per fathom. The winze sinking below the 100, west of rise, is now down 5½ fms. below the level. The south part of the lode, which the winze is being sunk upon, is yielding good stones of lead ore. The tribute pitches in the old part of the mine are yielding on an average 11 cwt. of lead ore per fathom.

GOTHIC.—J. Lister, June 20: The sinking of the engine-shaft is proceeding well; the men are making good progress, and the lower we go the more the lead increases; this is every indication of the lode proving rich when it comes to be laid open. We have intersected this with what I believe to be the south lode, in driving the 30 fm. level east; it is about 1 ft. wide, intermixed with lead ore, and must come above the lode shortly, when the men are driving in the cross-cut north. I have sent you the cost for May by this post.

GREAT LAXEY.—W. Rowe, June 18: Having completed the new tramways through the 200 fm. levels, and the making of a new lode at the Welsh shaft (referred to in previous reports), the drivings in the 220 and 200 fm. levels are being persevered with, and in the latter especially the lode is daily improving, with every indication of the lode drawing near to the rich ore ground now being laid open. We have intersected the level above the 190, our next upper level, has improved to the value of 100. 6d. per fm.; and the stope in the roof and sole of this level are also producing well, being in a lode 10 ft. wide in places, worth for lead and blende from 50. to 100. 6d. per fm. The sump between the 162 and 180 fm. levels we expect to hole almost daily. The 165 and 155 ends are still looking well, worth on an average 70. 6d. per fm. each, and a new sump has been commenced below the 155, in which the lode is worth 60. 6d. per fathom. There is no change in the 145 driving north.—Dumbell's: In the 125 fm. level, driving north from the engine-shaft, the lode, though larger, is not so productive as we anticipated, worth 40. 6d. per fm.; but the driving south is worth 90. 6d. per fm., while in the drivings north and south from the south sump, below the 110, the lode has improved, being worth on an average about 60. 6d. per fm. The 110 end has been gradually falling off in value, now worth about 30. 6d. per fm., but not without promise of improvement; and the stope in the roof of this level are about the same as last reported, producing similar quantities of ore. The lode in the 70 end south is worth about 80. 6d. per fm., and this driving is laying open good ground for stope. The 60, also driving south, and about 19 fms. behind the 70, is improving as we advance towards the bunch of ore proved in the level below, and the lode is now 4 ft. wide, worth 30. 6d. per fm. The 50, north of the engine-shaft, where we are stopping to make room for the new rods, the lode is worth 60. 6d. per fm.; and in the end of this level north, shortly now to be resumed, the lode is worth 60. 6d. per fm. Our new driving arrangements through this new shaft are all but completed, and we expect in two or three days will be in working order from the 50 to the day level. In the copper ground the stope now being worked continue as satisfactory as before, and we are preparing the washing floors for larger returns, which, as soon as such increased raisings may be desirable, can be produced.

GREAT NORTH DOWNS.—W. Rick, C. Bawden, June 19: We are urging on the 86, west of Sleggan's shaft, in the soft part of the lode, with the view to open up a communication with the No. 2 winze as speedily as possible, consequently there is no alteration in the value of the copper part of the lode since our report of last week—151. per fathom. We are making fair progress in cutting ground for tram-road around the shaft at the 86. The 86, east of No. 2 winze, is worth 81. per fathom. The 86, west of ditto, is worth 30. 6d. per fathom. The 70 west yields stones of ore. Two stope in the back of the 70 are worth 151. and 121. per fm., and a good lode goes down in the bottom of the level, which will be available

when the 86 is driven under it. The lode in King's shaft has a strong and black appearance, but not rich at present; we have recently passed through the ground, which may possibly be the slide we met with in Sleggan's shaft; it is of King's shaft, is suspended for the time, and the men put to rise in the level against the No. 1 winze for ventilation. The ground in Vivian's shaft, in the lode is very hard, and the lode poor. Butler's shaft, sinking below the 60, is looking well, now worth fully 151. per fathom for the length of shaft (8 ft.). The lode is yielding good stones of ore.

GREAT NORTH LAXEY.—R. Rowe, June 19: I made a careful examination of the mine yesterday. The engine-shaft is now 8½ fathoms below the 94; the lode is poor, but increasing in size and promise, and from the usual quantity of water proceeding from it, I feel confident we are near some change of improvement. In the 84, driving north, the lode is split into several parts, and now unproductive; the same level, driving south, has a lode 3 feet wide, containing a little tin, but not to value. In the 73 north we are sinking a winze on a lode which in value from 15 cwt. to 1 ton of ore per fathom. The 73, driving south, is showing signs of improvement, and which we have been daily looking for, as being a good ground for a gradual dip north. We now ought to meet with the bunch of ore covered in the 60, and I think we have touched it; my next report on this driving I expect will be cheering. The stope in the roof of the 60 are worth about 1 ton of lead per fathom.

GREAT RETALLACK.—G. R. Odgers, J. Harris, June 19: The lode in No. 4 shaft, sinking below the 10, is 4 ft. wide, producing good silver-lead ore. The shaft has completely drained the ground above it, and in the bottom of the shaft the indications are such as to lead us to believe that we are on the top of a large deposit of lead. The lode in the 10 south is not out of the influence of the east and west lode. We have holed the No. 1 winze below the adit, south, which has laid open good ground for stope, and to-morrow we shall resume the sinking of the No. 2 winze south below the adit, which we also calculate will lay open good lead ground. There is no change in the 10 north. Our 25 tons of lead ore, sold on the 18th, realised as follows:—No. 1, 211. 14s. 6d. per ton; No. 2, 221. 14s. 6d.; No. 3, 751. 10s.; No. 4, 1171. 2s. 6d., being an average of 301. 14s. 1d. per ton. This we consider to be an excellent sale, and when the 20 has been reached, we are enabled to open ground by winzes, we have no doubt, a very good present appearance, the mine will be worked as a profit.

GREAT SOUTH CHIVERTON.—J. Nancarrow, J. George, June 14: Gilbey's engine-shaft is now in full course of sinking; the lode 4 to 5 ft. wide, containing a great deal of carbonate of lime, with flooken, &c., altogether much congenial for lead. The ground in driving west, on the north lode, is hard, and the lode very wet, but we expect no alteration for the better shortly. The appearance of the 30 fm. level west, on the south lode, is all that can be desired for the production of lead.

GREAT SOUTH TOLGUS.—John Daw, June 14: Since the last meeting we have changed the plunger-poles at the 40, 70, and 90 fm. levels, as suggested at the meeting, but we have not drained the mine so quickly as anticipated, owing to several breakages in the machinery. The water was drained to the plunger of the bottom of the 125, at Lyle's shaft, when the bottom clack of the plunger lift failed, and this compelled us to put down another lift, to redeem the shaft. Had this clack remained good for 24 hours longer we should have saved the shaft, and began to work on the ore ground east and west of Noel's shaft, as this ground was dry. After fixing the drawing-lift, one of the boilers sprung a leak, which was behind very much, not being able to work the engine fast enough to have two boilers to fork any water, and we have also had occasion to stop for a few hours to repair some of the pitwork. The increase of water is principally coming from an elvan course in the 112 fm. level cross-cut north, also from a fault between the 100 and 125 fm. levels, and from the 70 fm. level south; for some time we have all the ground between South Tolgus and Wheel Union to drain, and we have also had a very wet season to contend against. The eastern part of this mine is as good a speculation as can be met with in the district, having already laid open good ore ground; and as a new part of the sett, east of the cross-course, where not much ore has been seen, and which we think the mine is likely to become a productive piece of ground. When the mine is sunk to the 154, and 140 fm. levels; and the average of the tinstuff has been 5 cwt. of tin per ton of stuff, and was working at an average of 9s. in 11. 6d. tribute, the water prevented the men from working. To effectually prove the eastern ground another engine, of not less than 60-in. cylinder, will be required, and 12 or 14 in. pitwork; and at this time, as mining machinery is so low in value, it could be got very cheap; should this be done, the engine at Wheel Tindley will not be required to work. We hope to have the 112 drained by Monday next. We hope to sell about 3 tons of black tin on the 26th inst.

GREAT WHEEL BADDERN.—R. Pryor, H. Tregoning, June 15: We have to-day set the following bargains:—The 75 cross-cut to drive south from the Borden engine-shaft by six men, at 161. per fm.; the end still continues in the elvan course. The 75 to drive west of the cross-cut, on the Badderns lode, by six men, at 61. 10s. per fathom; lode 2 ft. wide, much the same in character as the Trener north lode, as the beds or strata we have discovered there being branches of mundle and spar crossing the end of the shaft.

HALENBEAGLE.—W. Bawden, June 15: At Pinlinger's we are still obliged to suspend operations at the 72 fm. level, while trying to fork the water at the 72 fm. level, which is the water in the 56, east of Stone's shaft, since last reported. In the 56 fm. level cross-cut the ground seems to-day to be a little more favourable for driving. The water at Reed's is in fork 6 fms. 4 ft. below the 51.

HARWOOD.—J. Race, June 14: The north vein is breaking up, and going to the north in small strings. I believe we are in the vicinity of some stronger strata, and west vein, lying to the north, as the beds or strata are dipping in that direction. I purpose turning the level to the north immediately. The stope on all about as last reported. No alteration in opening out the old level. There is with send sample for sale of 20 tons of ore.

LOVELL CONSOLS.—W. Chappell, June 20: We have not as yet discovered the lode in the 12 fm. level, to the west of the great cross-course, but have the men to drive north, so as to ascertain how far the lode is heaved in the direction, so that we may judge how far we have to drive west in the bearing of the lode before the end intersects it. We have suspended the driving of the Trener north lode, as the lode is now in the level, and we have discovered the engine lode to the west of the cross-course, and put the same men to work on cross-cut south, at adit level, to the Combellack lode, marked on plan about 50 fms. south of engine lode. I have been informed that the former workers raised great quantities of tin on that lode, which is the same as those we have cleared, and secured a shaft on in the Tregunatist sett, where the lode is 1½ ft. wide, and very rich stones of tin can be seen in end of shaft. I calculate I will take from a month to five weeks to clear and secure the cross-cut and shaft to the Combellack lode, which I have been given to understand is worked down to bottom of adit level about 2 fms. We have attached a man of the Combellack shaft, and work the same without the additional cost of engine pitwork, &c., excepting labour, as we have sufficient pitwork in the mine, and the outlay for the trial will be comparatively small. All other operations will not change. Machinery and pitwork are working well.

MINERA UNION.—W. T. Harris, June 20: Brabner's Shaft: The lode in the 60 yard level north is 1½ ft. wide, worth 10 cwt. of lead per fathom, and very promising. The ground in the cross-cut is hard for progress. We are saving work for tin. In the 22 fm. level, the lode is 2 ft. wide, and worth 40. 6d. per fathom; the lode is formed again under the slide to its usual size, producing good stones of ore; we expect the lode will improve in this winze when we get a little further off the influence of the slide. Our stope in the back of the 120 fm. level are not quite so good; one is worth 101. per fathom, and the other is worth 61. per fathom. We sampled 59 tons of ore on Tuesday; this was raised in two months.

NANGILES.—Jas. Rowe, June 20: The 130 fm. level is driven 13 fms. west of the engine-shaft; the level is driving by eight men, at 101. per fathom; the lode is 3 ft. wide, containing stones of ore. The 120 fm. level is driven 36 f

works to the 18th. Operations at the mine continued to be carried on almost exclusively by tributaries. From Feb. 25 to the end of March 116½ tons of ore had been sampled, averaging 14½ per cent. for copper, and yielding by assay 16 tons 11 cwt. 2 qrs. 17 lbs. of fine copper. The directors are advised of the shipment, per John Duthie, of 14 tons of fine copper. There were 1½ ton of fine copper at Sydney, 13½ tons on the road from the smelting-works, and ore, coarse metal, and slags at the works which would produce 19½ tons. Wood on hand, 1660 tons.

SUCCESSFUL GOLD MINING—DON PEDRO NORTH DEL REY.—As will be seen by the advices (which appear in another column), the gold return for April amounts to 24,066 oits., which is equal to 2776 ozs. This is an increase of 4010 oits. over that of the preceding month, and the profit amounts to 7702l. 14s. 6d. The present is the financial position of the company—Paid-up capital, 53,313l.; balance of profit and loss account (Jan. 1, 1867), 1693l. 18s. 10d.; profit from January to April inclusive, 18,314l. 9s. 8d.—20,008l. 8s. 8d. From that amount has to be deducted the interim dividend of 1s. 6d. per share, and income tax (declared May 31), which absorbed 5807l. 7s. 1d.; so that at the present time there is an available profit of 14,201l. An extract from a letter dated May 18 states that—"Our general operations are proceeding exceedingly satisfactorily. The produce cleaned up to date amounts to 10,537 oits., and Maquina still continues to look well."

MINERAL RIGHTS ASSOCIATION.—We understand that one of the properties now before the board holds out more than ordinary promise, and if terms are agreed on it is almost certain to yield a very large profit to the company, even in the first twelve months. We believe that all the information yet received about it, through different disinterested channels, is decidedly in favour of the value of the property. The aggregate amount of investments made by the company has increased in value in the last few weeks, and as a proof of the favourable opinion now generally entertained of the result of the late general meeting, it may be observed that the price of the company's shares has stood better since then, and they have been in demand at higher rates. They will, no doubt, further advance if a few parties do not continue a useless and injurious agitation for attempting to wind-up the company, which deters people from buying the shares, and interferes with the negotiations for entering into business likely to lead to success. At the late meeting, the arrangement came to was that in six months the directors should again call the shareholders together, to report the result of their operations, and we have no doubt it will be satisfactory to all.

SANTA BARBARA GOLD MINING COMPANY.—A circular has been addressed to the shareholders, in which they are informed that when it was agreed to wind-up the company the stone yielded only 3½ oits. of gold to the ton, whereas it now yields 6 oits. per ton. The main lode had become contracted, whereas hopes are now strongly entertained that it will widen out, it having already widened from 5 to 8 ft. where it is now being worked, while in the main shaft, where the works have been suspended since the liquidation was agreed upon, at the time when Capt. Bryant discharged the men it had widened out from 5 to 12 feet. Should this widening continue, it is highly probable that the mine will yield a very profitable return for the money expended on it, it being the fact that during the last six months, although worked at great disadvantage, and on a limited scale, the mine has actually realised a small monthly profit. Under these circumstances, some of the principal shareholders have thought it only fair that existing shareholders should have a preference over the general public in an attempt, by fresh capital, to prove once more the capabilities of the mine. The quality, character, and yield of the stone are now known, and the only thing which has to be ascertained is the extent and width of the lode. It is estimated that this can be done by an expenditure of a further sum of 10,000l. It is, therefore, proposed to form a new company, in 30,000 shares of 10s. each, making a capital of 15,000l., on which a first call, of 4s. per share, will be made on allotment. There will be 2s. per share to be returned (1s. 6d. from the sale of 4500l., and 6d. balance of cash in hands of the liquidators and at Rio Janeiro) to the shareholders who have paid the last call, and this amount will be applicable to the payment of the first call of 4s., which it is proposed to make on the shares in the new company, the subsequent calls being made as the necessity may arise.

STEEL VERSUS IRON RAILS.—The advantage, in an economical point of view alone, of the steel over the iron rail is fast being made manifest, and the total disappearance of the latter appears to be a mere question of time. Whilst there are complaints from almost every iron district in the kingdom that very few orders for rails are being sent in, yet the makers of those of steel, particularly Bessemer, were scarcely ever busier. On nearly all large railways, and especially on those where the traffic is heavy, the steel rails are admitted to effect a very great saving, and are being fast put down on some of the largest lines. Amongst others, the London and North-Western have recently put some down, and other companies are doing the same. At one establishment alone, the South Yorkshire Works, at Penistone, the firm known as that of Cammell and Co. (Limited), about 300 tons of Bessemer rails are being turned out. There are some very large orders in hand for the Great Indian Peninsula Railway, which has now about 350 miles open, whilst the entire length of the line will be upwards of 1300 miles. For America, also, a large quantity is being made, as it is understood that the Grand Trunk of Canada line is to be laid with steel rails, which Mr. Watkin, M.P. (the Chairman of the company) asserts will effect a very great saving, seeing that they have some 1377 miles in work. Russia is now about our best customer for iron rails, for which country they may be suitable, seeing that the lines are long and the traffic limited. One very great bar to the general introduction of the Bessemer rail is the rather large royalty to the patentees by the makers, whilst in Prussia, where a very large quantity of Bessemer is being turned out, no royalty whatever is paid, patent rights not being recognised in that country. The advantage thus gained is such as to check exportations to the North of Europe.

COAL MARKET.—The arrivals this week only amount to 108 ships. Household coals have continued in steady request at last week's prices. Hartley's rather less active, and prices slightly lower. Hetton Wallsend, 19s. 6d.; South Hetton Wallsend, 19s.; East Hartlepool, 18s. 6d.; Stewart's Wallsend, 18s.; Braddyl's Hetton Wallsend, 17s. 6d.; West Hartley, 18s. Unsold, 9 cargoes: 25 ships at sea.

CONTRACTS FOR COAL.—The Admiralty require the supply of 7000 tons of South Wales coal, for Hong Kong; also, 1500 tons of South Wales coal, for Haulbowline.

THE COPPER TRADE.—Messrs. Vivian, Younger, and Bond (June 21) write—"The Chili advices referred to in our last have had their effect all through the week, and transactions have been very exceptional and difficult. Towards the close, however, there seems to be a little more disposition to make business both on the part of sellers and buyers, each showing some signs of giving way a little. The result of the continued low prices seems to have been to rid the market of the weak holders of English copper who went into the article during the Hispano-Chilian war, and also to bring down the price of the raw material to a more reasonable relative value, as compared with the prices of English copper. These two things should give a healthy tone to the article, for such demand as there is now goes to the smelters, and so on out have gone to Wales, where the advantages of cheaper wages and coals tell in their favour when prices are low, as compared with other rail-making districts. In shipbuilding iron there has been rather more enquiry, but the prices are still low, and there are not sufficient orders given out to keep the plate and angle mills of the country more than half employed. This branch of the trade has suffered not merely from the decrease of the demand for iron for shipbuilding, but from the stoppage of railway work, which took a very large quantity of plate and angle iron for wrought-iron bridge and girder-work. The demand for sheet-iron has improved, and a fair amount of business has been done for export. The enquiry for thin plates for tanks is brisker. Bar-iron continues to be very dull. We hear of North of England bars being offered at 6l. 5s., usual terms, at the works; good bars, made on the Thames, are offered at 6l. 10s., f.o.b. London. Pig-iron has rather improved in price, and there is a more hopeful feeling that prices have seen their lowest, and will now rather tend to improvement. The diminution in the number of furnaces in blast has told materially upon the stocks in Scotland, and were the pig-iron makers in the North of England to adopt the same course, the prices would not remain long at so great a disparity as 4s. per ton, f.o.b. Middlesbrough or Stockton, and 5s. per ton, f.o.b. Glasgow. The prejudice against North of England pig-iron, which was so very great a few years ago, has almost entirely disappeared now that the manipulation it requires is so much better understood by the workmen both at the forge and foundry. There is, therefore, less reason for so great a difference in the prices between it and Scotch. The castings made from it can bear equal comparison, both for finish and strength, with the finest made from Scotch iron, and it is believed that before long the district will find such combinations of the different qualities of the Cleveland ores as will render the use of hematite iron, which is often very irregular, quite unnecessary. In bridge work and house-building iron there is a dearth of orders. The iron for the large new station in London for the Midland Railway Company is to be supplied by the Butterley Company. The demand for plates, angles, &c., for the Government yards is less than it was at this time last year. The orders for old rails have fallen off, and prices are rather easier. Fully 25,000 tons of old rails and scrap iron have been sent to America during the past twelve months—an unusually large quantity for that market. The Staffordshire trade has been very dull for the past few weeks. The failure which has taken place in the dread of more, have produced an uneasy feeling, and

confidence is difficult to revive. Only a few of the best makers are able to keep their mills going full time. In Wales the rail mills are well employed; boat plates and bars being dull of sale, the works are not kept fully going. In the North of England there is little to be said of an encouraging character. The capacities of the district are so large that it requires a very brisk state of trade to keep all the works going full time. At present they are moderately well employed. The wages paid to workmen are much too high throughout the whole trade. By exacting wages which leave no margin for the employer, the result can only, in the end, be to injure themselves.

* * With the Journal of this week a SUPPLEMENTAL SHEET is given, which contains—Silver Mining in the United States (with illustration of the famous Poorman Mine); the Mineral Resources of Costa Rica—No. II.; Mr. Gresham Hull's new Safety Fuzes; Mr. McBeath's Improvements in Distilling Shale, Coal, and other Bituminous Matters; Quick-speed High-pressure Expansive Engine, by Mr. N. P. Burgh (with illustrations); Interesting Exploration in South Staffordshire; Artificial Fuel; the Oaks Colliery, and Mr. J. K. Blackwell's Report, &c.

The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET—LONDON, JUNE 21, 1867.

COPPER.				s. d.		s. d.		IRON.				Per ton.	
Best selected...p. ton	82	0-0	83 0 0					Bars Welsh, in London	6 10	0-6	15 0		
Tough cake and tile	79	0-0	81 0 0					Ditto, to arrive	6 10	0-	-		
Sheathing & sheets.	81	0-0	83 0 0					Nail rods	7 0	0-8	0 0		
Bolts	83	0-0	-					" Staffs, in London	7 10	0-8	10 0		
Bottoms	88	0-0	-					Bars ditto	7 10	0-9	10 0		
Old (Burra)	72	0-0	-					Hoops ditto	8 12	6-9	12 6		
Burra Exchange	87	0-0	88 0 0					Sheets, single	9 10	0-11	0 0		
Wire	per lb.	0 0	11½					Pig No. 1, in Wales	4 5	0-4	10 0		
Tubes	"	0 0	11½					Refined metal, ditto.	4 0	0-2	0 0		
								Bars, common	5 15	0-6	0 0		
BRASS.				Per lb.									
Sheets	per lb.	8d.-10d.						Do. mch. Tyneor Tees	6 10	0-	-		
Wire	"	8½d.-9½d.						Do., railway, in Wales	5 15	0-6	0 0		
Tubes	"	10½d.						Do., Swed. in London	10 5	0-10	10 0		
Yellow Metal Sheath.	p. lb.	7½d.	-					To arrive	10 10	0-	-		
Sheets	"	7 d.-	-					Pig No. 1, in Clyde	2 15	0-3	5 0		
SPELTER.				Per ton.									
Foreign on the spot	21	0 0	-					Do. f.o.b. Tyneor Tees	2 9	0-	-		
" to arrive	21	0 0	-					Do. Nos. 3, 4, f.o.b. do.	2 6	0-2	7 0		
ZINC.				Per ton.									
In sheets	27	0 0	-					Railway chairs	5 10	0-15	0 0		
								" spikes	11 0	0-12	0 0		
TIN.				Per ton.									
English blocks	89	0 0	-					Indian Charcoal Pigs,	7 0	0-7	10 0		
Do., bars (in barrels)	90	0 0	-					In London p. ton	7 0	0-7	10 0		
Do., refined	92	0 0	-					STEEL.					
Banca	92	0 0	-					Swed., in kegs (rolled)	14	0-14	10 0		
Straits	280	0 0	86 10 0					Ditto, in faggots	16	0-	15 10		
TIN-PLATES.*				Per box.									
IC Charcoal, 1st qua.	1	8 0-1	10 0					English Pig, com.	19	17	6-		
IX Ditto, 1st quality	1	14 0-1	16 0					Ditto, L.B.	20	0-20	5 0		
IC Ditto, 2d quality	1	4 0-	-					Ditto, W.B.	22	5	0-		
IX Ditto, 2d quality	1	10 0-	-					Ditto, ordinary soft	20	0-20	10 0		
IC Coke	1	3 6-1	4 0					Ditto, sheet	30	15	0-		
IX Ditto	1	9 6-1	10 0					Ditto, red lead	20	15	0-		
Canada plates, p. ton	13	0 0	-					Ditto, white	27	0-30	0 0		
Ditto, at works	12	0 0	-					Ditto, patent shot	23	0-	-		
								Spanish	19	10	0-		

* At the works, 1s. to 1s. 6d. per box less.

† A Derbyshire quotation: not generally known in the London market.

REMARKS.—Very little alteration has taken place in the Metal Market during the past week, and the progress towards a more active condition is but slow, still if business is not improving very fast it is certainly not retrograding, and the tendency is rather in favour of movement than otherwise. We are, therefore, justified in anticipating that in due course we shall find the metal trade returning to a more satisfactory state, and see business again going forward with its wonted activity and life. The Money Market still shows a continued easiness, and capital is now only waiting for safe and advantageous investments, while great facilities are, consequently, being offered to parties who are disposed to enter into speculative transactions in metals, which are now in such a position as regards prices that it is almost certain that eventually they must come out with considerable profit. These advantages and prospects, however, do not seem at present to draw out speculators, who are either waiting for a more active demand to spring up, in which case prices would, of course, advance, and consequently the advantage of purchasing cheaply would be removed; or else they are themselves, perhaps, mixed up with some of those unfortunate concerns still in process of liquidation, and thus are uncertain as to the position they may occupy some time hence. The exposure of the fallacious way in which business is conducted by some of the railway companies is not calculated to restore confidence in that direction, still we do not anticipate that this will directly tend injuriously to affect the metal market, although indirectly it is calculated to hinder the return of that commercial prosperity which all are so desirous of again seeing. It is earnestly to be hoped that these various exposures will lead to business generally being conducted upon a safer and more secure basis.

COPPER.—The market has not yet recovered from the depression referred to last week, and no business of importance has occurred. Tough cake has been sold at 79l., and about 300 tons Chili slab and bars have been sold in Liverpool; the former at 70l. 10s., and the latter at 70l.

IRON.—In Staffordshire the larger firms are receiving about as many orders as they were, but the smaller makers complain, and recent failures, by checking confidence, render their position more difficult. It is pretty certain that next quarter-day will be quiet. The East Indian demand is good, and orders are coming from the United States, but for very small amounts. Should the harvest there maintain its present promise, a good fall demand is regarded as likely. There is more demand for railway purposes. In Welsh there are not at present any pressing engagements, and the stocks are as yet, in many instances, more than sufficient to meet the requirements of buyers. Eastern orders are gradually making their appearance in the market, and a good trade is expected to be done in that quarter. Considerable purchases of rails are made by Russian and American houses. The exports have been tolerably good this month, although not quite so large as in May, when the returns were unusually heavy. Pigs are fairly supported, and buyers continue to purchase with greater freedom. In Swedish business still continues good, the demand remaining active. In Scotch pig-iron only a moderate amount of business has been done, the price remaining throughout the week at 53s. 9d. cash.

LEAD.—The market continues dull, and prices appear to have a drooping tendency, some transactions having taken place under recent quotations.

TIN.—The standard of ore in Cornwall has been advanced 2l. per ton, which has had the effect of making prices of English steady at official rates. The market for Straits also continues firm, at 86l. to 86½l. cash, and 87l. for arrival, at all of which prices business has been done, the enquiry still remaining very good.

SPELTER.—The amount of business transacted during the week has been small. Parcels on the spot remaining firm, at 21l.

TIN-PLATES.—The trade is quiet. The orders in the books keep the works going, but very few fresh engagements are offered.

STEEL.—In foreign a considerable business has been done.

QUICKSILVER.—Demand only moderate.

BIRMINGHAM, JUNE 21.—Rylands' "Iron Trade Circular" says—Trade absolutely dull; prices steady in pig; weak in manufactured iron.

In the MINING SHARE MARKET this week there has been a very large business done in several mines, and prices generally have been well sustained. The tin standard is up 2l., and the standard for copper ores down about 10s. The mines which have been mostly dealt in have been Prince of Wales, Great Wheal Vor, Clifford Amalgamated, Great Laxey, West Seton, Wheal Crebore, North Trekerby, West Chiverton, Wheal Chiverton, Wheal Buller, Wheal Grenville, East Grenville, Great Retallack, Chontales Gold, and a few others. On the Stock Exchange there is a vast amount of business doing in gold mines. Chiverton Moors have advanced to 5½, 6, and in demand. Devon Great Consols are firm, at 41s to 42s; with another good sale of ore this month, we hope we may congratulate the shareholders on the prospect of increased dividends for the future. Prince of

Wales shares have been very largely dealt in, and the settlement of the last account is not yet closed. Shares were made flatter on Wednesday, and done as low as 63s. to 65s., but they rallied again, and on Friday were done at 3½, leaving off 3½ to 3½; the sale of ore for the month has realised 1184½l. 17s. with carriage, and a large parcel expected to be sampled next week. The only material change in the mine are an improvement in the 55 west, and the appearance of another course of ore in the 45 east. West Prince of Wales shares have been in good demand, at 10s. to 15s. Drake Walls, 10s. to 12s. 6d.; East Basset, 16 to 17; East Caradon, 5½ to 6½. Chontales shares have fluctuated a good deal, owing to the call of 10s. per share made on Saturday last having induced a few sellers; but they leave off firmer, at 4½ to 4½. The private advices by the last mail said to have been most satisfactory, and such as to justify the false-filament ere long of the extraordinary statements in the prospectus; some disappointment, therefore, was expressed at the rather meagre report inserted in last week's Journal.

Great Wheal Vor, 18 to 19; at the meeting the accounts showed a balance in hand of 5193l., and a dividend of 7s. 6d. per share was declared. Clifford Amalgamated shares have advanced to 7½, 8 (call paid); at the meeting a call of 1½ 7s. 6d. per share was made, to pay off the debt, and the mine is said to be looking better. East Lores, 7½ to 8; East Rosewarne, 7s. to 9s.; East Russell, 2 to 2½; Fronton, and Bolivia, 11s. to 13s. Great Retallack shares have advanced to 4½, 5; the sale of silver-lead ore (25 tons) realised 767l. 12s. 1d., or an average of 30½l. 14s. 1d. per ton. The first parcel brought 117½l. 2s. 6d. per ton; another, 75½l. 10s. per ton; another, 32½l. 10s. 6d. per ton; and the other, 21½l. 6d. per ton. The lode in No. 2 shaft has increased to 4 feet wide, with good silver-lead ores, and leads the agents to think it looks like being the top of a large deposit of ore. W.L. Grenville shares have been in demand, and advanced to 25s., 2½s. in the 90 fathom level cross-cut north there is an improvement, which leads the agents to expect some good discovery of copper. East Grenville, 2 to 2½; in the 93 east the lode has improved to 2½ tons of copper ore per fathom. Great Laxey, 19 to 20; Great North Downs, 3½ to 3½; Great Wheal Fortune, 2½ to 3; Herodsfoot, 35 to 37; Marks Valley, 4½ to 5; North Crofty, 3½ to 3½; North Roskear, 4½ to 5½; North Trekerby, 1½ to 1½; Providence Mines, 29 to 30; Rosehill Hill and Ransom United, 2½ to 2½; Tincroft, 13 to 14; West Basset, 12s. 6d. to 17s. 6d.; West Chiverton, 66 to 68; West Seton, 14s to 15s; Wheal Basset, 68 to 70; Wheal Buller, 24s. to 26s.; Wheal Chiverton, 6½ to 7; Wheal Crebore, 9s. to 11s.; Wheal Margaret, 6 to 7; Wheal Mary Ann, 14 to 15; Wheal Seton, 117 to 120; Wheal Trelawny, 8½ to 9½, ex dividend of 4s. per share; Crelake, 15s. to 25s. Penhale Wheal Vor, 3½ to 3½; the lode has been taken down in the 26 fathom level end east, worth 30l. to 40l. per fathom. Sinking will be recommenced at Sanford's shaft on Monday next; and from the appearance of the lode in the bottom of the shaft, the agents think they are near a rich course of tin. South Francis, 25 to 30; we understand there is a rich course of ore in the bottom of the mine.

The market for mining shares on the Stock Exchange, in the early part of the week, was inanimate; prices, nevertheless, were fairly maintained. On Thursday and Friday general activity was manifested, and prices generally higher, and finally close at the best. The St. John del Rey, and Brazilian advices generally, by the letters delivered to-day, are of a favourable character. St. John del Rey, 65 to 67; Don Pedro, 3½ to 4; Pestarena, ½ to ½ prem.; Chontales, ½ to ½ prem.; Port Phillip, ½ to 1½ per share; Anglo-Brazilian, ½ to ½ prem.; Rossa Grande, ½ to ½ per share; Anglo-Italian, ½ to ½ prem.; English and Australian Copper, ½ to ½. English mines are in good demand, Prince of Wales have risen to 67s. 6d., 70s.; West Chiverton, 66 to 68; Chiverton, 6½ to 7; Great Laxey, 18½ to 19; North Crofty, 3½ to 4; Chiverton Moor, 5½ to 5½; Great Retallack, 4½ to 4½; at Westminster Mines the lode in the 70 has improved to 1½ ton of lead per fathom. Taquaril, ½ to ½ prem., and enquired for; this company is favourably received.

IRISH MINE SHARE MARKET.—Notwithstanding a general downward tendency of all stocks and shares, there has been a moderate amount of business done in mining shares. The public appears to have taken the view we expressed last Saturday of the absence of any legitimate ground for last week's fall of the Wicklow Copper Mining Company's shares to 21l., many buyers having come forward to avail themselves of the low quotation. A gradual rise was, of course, the consequence, and shares have during this week been freely taken at prices varying from 21l. 10s. to 21l. 15s., leaving off at 21l. 12s. 6d. for account (2½l. 10s. paid), and thus establishing a recovery of from 12s. 6d. to 15s. On the other hand, Mining Company of Ireland shares have been adversely operated upon, effecting a decline from 17½s., last week's medium price, to 16½s., for no better reason than there was for the recent temporary fall in the Wicklow Coppers. General Mining Company for Ireland shares are entirely neglected, and there is also a complete blank in all the other shares.

At Truro Ticketing, on Thursday, 3689 tons of ore were sold, realising 17,015l. 12s. 6d. The particulars of the sale were:—Average standard, 114½l. 19s.; average produce, 6½; average price per ton, 4½l. 12s.; quantity of fine copper, 236 tons 6 cwt. The following are the particulars:—

Date.	Tons.	Standard.	Produce.	Per ton.	Per unit.	Ore copper.
May 23	3592	1116 18 0	6½	44 10 0	14s. 6d.	672 10 0
" 30	2370	107 15 0	7½	5 12 0	14 6½	75 0 0
June 6	3288	114 9 0	6½	4 8 0	14 1	70 0 0
" 13	1658	116 11 0	6½	4 6 0	13 9½	69 10 0
" 20	3689	114 19 0	6½	4 12 0	14 5	72 0 0

Compared with last week's sale, the decline has been in the standard 10s., and in the price per ton of ore about 8d. Compared with the corresponding sale of last month, the standard is about stationary.

The Standards of Tin Ore are advanced on the 17th inst. 2s. per cwt., and are now as follows:—Common, 83s.; superior common, 84s.; fine, 85s.; superior fine, 86s.

The ROSSA GRANDE GOLD MINING COMPANY has decided upon the issue of the remaining 30,000 shares, which will complete the authorised capital of 100,000l., at a premium of 1s. per 1½ share. Messrs. Henry Haymen and Robert Hesketh, of the Don Pedro North del Rey Mines, have joined the board, and the directors have decided to appoint a local superintendent, so that the mining captain's time may be entirely devoted to laying out and developing the mines. The directors have ordered the immediate commencement of operations on the unexplored jacotinga formation, from which satisfactory results are looked forward to, considering the close proximity to the Gongo Soco lode. The prospectus will be found in another column of this day's Journal, and appended to it is the report of Capt. Thomas Treloar. He states that he has known the Rossa Grande property for 28 years, that the lower rock formations should receive early attention from the company, and that the rock formations are preferable, in his opinion, to the jacotinga formations, though the latter are, doubtless, more tempting to speculators, because the precious metal is found in bunches. One year the mines may be very poor, the next very rich; but rock formations are more constant and sure. During the time the company have been waiting for legal possession a new 12-head stamp mill has been erected, and work preparatory to the opening of the mines carried on upon a small scale. The office of superintendent had been offered to a gentleman of 30 years' experience in Brazil, and the directors have reason to think that he will accept the appointment, so that there is no doubt that the undertaking will be successfully and profitably carried out.

The third annual meeting of CHARLES CAMMELL and Co. (Limited) was held at Sheffield yesterday, when the directors' report, announcing the continued satisfactory progress of the enterprise, notwithstanding the unparalleled crisis through which the country has lately passed, was unanimously adopted. The balance-sheet, audited and vouched by Messrs. Chadwick and Adamson, shows that after deducting all current expenses of the year, including office charges, travelling expenses, salaries, taxes, directors' and auditors' remuneration, interest paid on balance of purchase money, &c., and a sum of 11,408l. 5s. for depreciation of buildings and plant during the year, the net amount now available for dividends is 67,462l. 15s. 9d.; out of which the directors recommend the payment of 5½s. per share, which will make with those already paid a total of 30 per cent. in dividends during the past three years, and still leaving a balance of 16,462l. 15s. 9d. to

be carried forward to next year's account. The whole of the buildings and machinery have been maintained out of revenue, and the usual deductions for depreciation have been made. Several large contracts have been secured in the armour-plate department; Bessemer steel continues to extend in its application to purposes for which iron had previously been used; and the file machinery works very satisfactorily, and is a source of considerable economy in the manufacture of those tools. The retiring directors were re-elected, and the declaration of the dividend sanctioned by the meeting.

At Great Wheel Vor United Mines meeting, on Wednesday (Mr. George Noakes, F.G.S., in the chair), the accounts, made up to the present time, showed a balance of assets over liabilities of £1991. 0s. 3d. A dividend of £121. 10s. (7s. 6d. per share) was declared, leaving £2883. 10s. 3d. to be carried forward to the next account. Since the meeting the lode in Ivey's shaft has been further improved. Details in another column.

At the Wheel Trelawny meeting, on Tuesday (Mr. Nicholson in the chair), the accounts showed a credit balance of £1526. 11s. 10d. A dividend of £121. 10s. (7s. 6d. per share) was declared, leaving £2883. 10s. 3d. to be carried forward to the next account. Details in another column.

At the Ding Dong Mine meeting, on Tuesday (Mr. Nicholson in the chair), the accounts showed a credit balance of £1526. 11s. 10d. A dividend of £121. 10s. (7s. 6d. per share) was declared, leaving £2883. 10s. 3d. to be carried forward to the next account. Details in another column.

At the St. John del Rey Mining Company meeting, on Wednesday (Mr. J. D. Powles in the chair), a dividend of £9,500. (4s. 10s. per share) was declared. Details in another column.

The Bank of England Return, for the week ending on Wednesday evening, was again favourable. In the ISSUES DEPARTMENT there is shown an increase in the notes issued of £229,215, which is represented by a corresponding increase in the coin and bullion on the other side of the account. In the DISCOUNT DEPARTMENT there is shown an increase in the "public deposits" of £229,215, and in the "rest" of £229,215, a decrease in the other deposits of £229,215, and in the "seven day and other bills" of £229,215, leaving a net increase on the liability side of £229,215, which, added to the decrease of £229,215, on the "other securities" on the asset side, shows an increase in the total reserve of £229,215. There has been no alteration in the minimum rate of discount.

The Provincial Bank of Ireland directors notify that a dividend for the half-year ending Midsummer, at the rate of 4 per cent. on the paid-up stock, and also an extraordinary dividend of 30s. on each 100s. share, and 12s. on each 10s. share, will be paid to the proprietors on July 18.

On the Stock Exchange a considerable amount of business has been transacted in Mining Shares during the week. The following quotations were officially recorded in British Mining Shares:—Wheal Section, 122, 124; Great Wheel Vor, 193, 194, 195; East Caradon, 6, 6½; Prince of Wales, 3½, 3½; North Roskear, 5½; West Chiverton, 67; Colonial Mining Shares the prices were:—Yudanumutana, 1½, 1½; Port Phillip, 15-16ths; Scottish Australian, 1½, 1½-16th, 1½; Cape Copper, 7½. In Foreign Mining Shares the prices were:—St. John del Rey, 64, 63½, 64, 63½, 64; Chontales Gold, 4½, 4½, 4½; Don Pedro North del Rey, 3½, 3½, 3½, 3½, 3½; Pesta, 3½, 3½, 3½; Anglo-Brazilian, 1½, 1½, 1½; United Mexican, 2, 1½; Frontino and Bolivia, 1.

It will be pleasing to a large circle of our readers and friends to hear of Mr. Josiah Hugo Hitchens's safe return from Algeria and the South of France, after an absence of six weeks. His mission to those countries was to examine and report on some very extensive mineral properties, for the performance of which responsible duties it will be admitted that a more able and trustworthy authority could not have been selected. Mr. Hitchens may fairly be considered one of the most enlightened in his profession, his practically scientific qualifications, his well-matured judgment enabling him to properly test and correctly estimate all mineral sets, and give reliable advice as to the value of mines and the working of them in the most advantageous manner. The extensive range of his opportunities must, indeed, have made him well acquainted with mineral formations of every varied character, his experience extending over a period of 35 years. His name and reputation will, however, always be best known on account of his being the discoverer, projector, and consulting engineer of the Devon Great Consols, the great celebrity of which mines needs no comment, the dividends paid amounting to £1,085,430, on a paid-up capital of £1,000,000, whilst the present value of the property is £40,000, being a net profit of £1,085,430, upon the original outlay. It cannot be doubted that those who consult Mr. Josiah Hugo Hitchens on mining matters act wisely, being sure of a professional, sound, and honest opinion for their safe guidance.

THE PANULICILLO COPPER COMPANY.—The directors, in a special report, state that, owing to the unprecedented low rates which have ruled for copper during the past half-year, they are unable to announce the distribution of any dividend; but it is thought that, owing to the diminution in the scale of production, an improvement in the value of that metal will take place. Attention has been given to the effecting of every economy consistent with the efficient working of the mine; and the directors expect that, for the future, the produce will be rendered available on such terms as, even at the present low prices ruling, to leave some profit—while a rise of only 1s. per unit would represent a very handsome dividend on the capital of the company. Mr. John Hamilton (the manager) still speaks confidently of his ability to produce regularity to sell at a profit, at the equivalent of 14s. per unit here, the lowest price at which sales have been made during the past six months. The directors, therefore, consider that they have every reason to anticipate that, after the expiration of six months from the completion of the railway, they will be able to report the existence of a much more satisfactory state of affairs, apart altogether from any rise in the value of copper on this side. The last letters from Mr. Hamilton announce that the cross-cut from the Pique Isabel had reached the hanging-wall of the lode (which is a most important point), and also that the connection of the railway with the lower establishment had been completed, and the option is reiterated that regulus will be produced hereafter at a very low cost (say 12s. per unit, laid down in England) when the tramway is finished and the whole 30 furnaces in full operation.

TREASURY CONSOLIDATED MINES COMPANY (LIMITED).

Established for working a valuable and extensive run of mineral ground in Cornwall.

Capital, £50,000, in 10,000 shares of £5 each.
Terms of subscription—payment by £1 per share on application, and £2 on allotment.

BANKERS.
The Alliance Bank, London, Liverpool, and Manchester.
Messrs. Williams, Williams, and Co., Camborne, Cornwall.

SOLICITORS.
J. Perry Godfrey, Esq., South-square, Gray's Inn.
John Trevena, Esq., Redruth, Cornwall.

INTERIM SECRETARY—Thomas Webb, Esq.
OFFICES (per tem.), 2, NEW BROAD STREET, LONDON.

Prospectuses, with forms of application for the remaining shares, may be obtained from the bankers, solicitors, or at the temporary offices of the company. For further particulars see last week's MINING JOURNAL.

THE HENDOL SLATE AND SLAB COMPANY (LIMITED), BIRMINGHAM.

The TRANSFER-BOOKS will be CLOSED on the 24th June, 1867. On the 24th July, 1867, inclusive, for the purpose of PAYING at the latter date the DIVIDEND, at the rate of SEVEN AND A HALF PER CENT. PER ANNUM, warranted by the vendor.
W. HOLMDEN, Secretary.

CHONTALES GOLD AND SILVER MINING COMPANY (LIMITED).—Notice is hereby given, that the directors have this day made a CALL of TEN SHILLINGS PER SHARE, PAYABLE at the Imperial Bank, Lombard, on or before the 23rd day of July next.

The Transfer-books will be closed from the 17th to the 22nd of June, both days inclusive.
By order, C. B. PARRY, Secretary per tem.
185, Gresham House, Old Broad-street, London, June 15, 1867.

FRONTINO AND BOLIVIA SOUTH AMERICAN GOLD MINING COMPANY (LIMITED).—At an EXTRAORDINARY MEETING of the shareholders of this company, convened by eighty-six shareholders, held at the London Tavern, on Friday, the 21st day of June, the following resolutions were passed:—

Resolved,—That it is necessary that two inspectors be appointed, in pursuance of the Companies Act of 1862, to examine the affairs of the company, and to put in force all the provisions in respect of inspectors contained in the said Act; and that the inspectors may, if they think proper, employ a solicitor to advise them in the matter.

Resolved,—That Chas. John Payne and John Sangster be the inspectors, with all powers to act and to report the result of their investigation to the shareholders, by notice or by a shareholders' meeting.

Resolved,—That the best thanks of the shareholders be accorded to Mr. Josiah Harris, for having disinterestedly protected their rights and interests.

Resolved,—That the thanks of the meeting be given to the chairman.
C. J. PAYNE, Chairman.

NEVADA.—W. T. RICKARD, F.C.S., recently returned from the Silver Mining Districts of Nevada, may be CONSULTED as to the POSITION AND PROSPECTS of COMPANIES operating in that country.
Street, E.C.

STEAM-BOILERS made by WILLIAM WILSON, LILYBANK BOILER WORKS, GLASGOW, on the most improved principles, for home and export. All boilers made of the best material and workmanship, proved and warranted tight under a high pressure, and delivered at any railway station or shipping port in the kingdom at moderate rates. Lithograph of boilers awarded post-free on application.

Contract for Coals for Hong Kong.

CONTRACT DEPARTMENT, ADMIRALTY, SOMERSET HOUSE.



THE COMMISSIONERS for Executing the Office of Lord High Admiral of the United Kingdom of Great Britain and Ireland, do hereby give notice that, on TUESDAY, the 20th July next, at Two o'clock at noon, they will be READY TO TREAT with such persons as may be willing to CONTRACT for SUPPLYING and DELIVERING into store or on board Her Majesty's steamships and vessels at Hong Kong, SEVEN THOUSAND TONS of SMOKELESS SOUTH WALES COALS, fit for the service of Her Majesty's steamships and vessels, one-third of the coals to be shipped by the 31st July, another third by the 30th September, and the remainder by the 31st October, 1867.

A form of the tender and conditions of contract may be seen in the lobby of the Storekeeper-General's Department, Admiralty, Somerset House. No tender will be received after Two o'clock on the day of treaty, nor will any be noticed unless the party attends, or an agent for him duly authorised in writing.

Every tender must be addressed to the Secretary of the Admiralty, and bear in the left-hand corner the words "Tender for Coals for Hong Kong," and must also be delivered at the Department of the Storekeeper-General, Admiralty, Somerset House, accompanied by a letter signed by two responsible persons, engaging to become bound with the person tendering in the sum of £4000 for the due performance of the contract.

By order,
ANTONIO BRADY,
Registrar of Contracts and Public Securities.
Contract Department, Admiralty, Somerset House, June 18, 1867.

Contract for Coals for Haulbowline.

CONTRACT DEPARTMENT, ADMIRALTY, SOMERSET HOUSE.



THE COMMISSIONERS for Executing the Office of Lord High Admiral of the United Kingdom of Great Britain and Ireland, do hereby give notice that, on TUESDAY, the 20th July next, at Two o'clock at noon, they will be READY TO TREAT with such persons as may be willing to CONTRACT for SUPPLYING and DELIVERING into store at Her Majesty's Naval Yard at Haulbowline, ONE THOUSAND FIVE HUNDRED TONS of SMOKELESS SOUTH WALES COALS, fit for the service of Her Majesty's steamships and vessels. The coals to be delivered by or before the 31st July next.

A form of the tender and conditions of contract may be seen in the lobby of the Storekeeper-General's Department, Admiralty, Somerset House. No tender will be received after Two o'clock on the day of treaty, nor will any be noticed unless the party attends, or an agent for him duly authorised in writing.

Every tender must be addressed to the Secretary of the Admiralty, and bear in the left-hand corner the words "Tender for Coals for Haulbowline," and must also be delivered at the Department of the Storekeeper-General, Admiralty, Somerset House, accompanied by a letter signed by two responsible persons, engaging to become bound with the person tendering in the sum of £4000 for the due performance of the contract.

By order,
ANTONIO BRADY,
Registrar of Contracts and Public Securities.
Contract Department, Admiralty, Somerset House, 18th June, 1867.

India Office—Contract for Iron.

CONTRACT DEPARTMENT, ADMIRALTY, SOMERSET HOUSE, 18th June, 1867.

BY ORDER OF THE SECRETARY OF STATE FOR INDIA IN COUNCIL.

NOTICE IS HEREBY GIVEN that the DIRECTOR-GENERAL OF STORES FOR INDIA will be READY, on or before Monday, the 24th of June, to RECEIVE PROPOSALS, in writing, sealed up, from such persons as may be willing to SUPPLY—

BRITISH IRON,
And that the conditions of the said contract may be had on application at the India Store Office, Cannon-row, Westminster, where the proposals are to be left any time before Two o'clock P.M., of the said 24th day of June, 1867, after which hour no tender will be received.
GERALD C. TALBOT, Director-General.
India Office, June 17, 1867.

WEST DRAKE WALLS, CALSTOCK, CORNWALL.
WANTED, a good second-hand PUMPING ENGINE, not less than 40 in. cylinder, with BOILER.
Tenders, stating the lowest selling price for the above, delivered at the mine, should be sent on or before Monday, the 24th inst., to the purser,
Dated Liskeard, June 11, 1867.
MR. RICHARD CLOGG, Liskeard.

THE KILLALOE SLATE COMPANY (LIMITED).—WANTED, a RESIDENT MANAGER or AGENT, to carry on these extensive works. He must be a man of active habits, and very considerable experience in the management of slate quarries and machinery. A knowledge of the Welsh language would be desirable. Apply to the Secretary of the Company, Slate Quarries, Killaloe, Ireland.—18th June, 1867.

TO MINING AGENTS.—WANTED, an ACTIVE AGENT, to take the SOLE CHARGE of the WEST GREAT ST. GEORGE MINE, ST. AGNES.—Applications, stating salary expected, with references and testimonials, to be addressed to the secretary, 104, King-street, Manchester.

TO LANDED PROPRIETORS AND MINING COMPANIES.—WANTED, by a Person 34 years of age, of gentlemanly address, a SITUATION, either home or abroad. Is thoroughly conversant with accounts, is a practical mapper, dialler, and surveyor, and has a good practical knowledge of mining. First-class references.—Address, "B. B.," Post-office, Gunnislake, Cornwall.

TO CAPITALISTS—PROFITABLE AND SAFE INVESTMENT.—FOUR THOUSAND POUNDS REQUIRED TO COMPLETE THE DEVELOPMENT OF VALUABLE COAL AND CANNEL SEAMS, already in working. Liability can be limited, if desired. Principals only treated with.
Apply to Messrs. EYRE and LAWSON, Solicitors, 1, John-street, Bedford-row London.

SECRETARYSHIP, OR OTHERWISE.—WANTED, by a GENTLEMAN, 40 years of age. Has had fifteen years' experience as secretary to public companies. Possesses the highest testimonials as to character and ability. A good French scholar. Has an extensive business connection in London, Liverpool, and other principal towns.—Address, "A. B.," MINING JOURNAL OFFICE, Fleet-street, E.C.

FOREMAN for a GRANITE QUARRY, near REDRUTH.
WANTED, an EXPERIENCED MAN of good character.—Apply by letter, prepaid, to "H. V.," MINING JOURNAL OFFICE, 26, Fleet-street, London.

SWING CRANE WANTED for a GRANITE QUARRY, near REDRUTH.—Second-hand or new; of iron, or partly wood, with a powerful winch attached, and the whole equal to swing 10 tons by three men. Particulars, and lowest cash price, by letter to "H. V.," MINING JOURNAL OFFICE, 26, Fleet-street, London.

COPPER MINE.—THE OWNER of an extensive COPPER MINE on the MEDITERRANEAN COAST WISHES to find a FIRM or COMPANY that would WORK IT UP, he keeping a share in the business. For particulars, &c., write to "Z.," Messrs. Lee and Nightingale, Liverpool.

A GENTLEMAN, of great mining experience, RECOMMENDS to INVESTORS some EXTRAORDINARY CHEAP SHARES in a first-class COPPER MINE, certain of realising immense profits in a short period of time, with dividends during the present year. Price, £5 per share for fifty, or any portion.—Address, Box T. 32, Manchester.

WANTED.—A RE-ENGAGEMENT as COLLIERY MANAGER.—Many years' experience and first-class testimonials. No objection to go abroad.—Apply to "H. M.," MINING JOURNAL OFFICE, 26, Fleet-street, London.

WANTED, a GOOD SILVER-LEAD PROPERTY, requiring only a small capital to work it. It must bear the closest examination, and be situated in a convenient position for working.—Offers, containing full particulars, must be addressed "Silver-Lead," MINING JOURNAL, 26, Fleet-street, E.C.

WEST MARIA AND FORTESCUE MINE.—FIFTY SHARES FOR SALE, at 17s. 6d.—Apply to W. and D. MACLEAN, Sharebroker, 98, West George-street, Glasgow.

CARDIGANSHIRE LEAD MINES.—WANTED, TO SELL, TWENTY or THIRTY SHARES in the above very valuable property. Wanted an offer; no price less than £15 10s. each will be entertained.
Apply to Mr. J. B. REYNOLDS, 70 and 71, Bishopsgate-street, London, E.C.

LANFAIR GREEN AND BLUE SLATE QUARRY COMPANY (LIMITED).—Manager, T. HARVEY, Esq.—TO BE SOLD, FORTY SHARES, at £1 per share. No calls.—Address, "A. B.," MINING JOURNAL OFFICE, 26, Fleet-street, London, E.C.

IRON MINE.—A VALUABLE IRON MINE FOR SALE BY PRIVATE CONTRACT, situated in one of the richest mineral districts of NORWAY. There are SMELTING WORKS, MACHINERY, FORGES, and WORKMEN'S DWELLINGS, &c. The expense of raising the ore trifling, and an easy access to port of shipment.
Apply to Mr. E. V. HOLFORD, Public Accountant, No. 17, Gracechurch-street, London.

**TO BE DISPOSED OF, the HALF of a COLLIERY, situated in the thriving town of FLINT, and in the immediate vicinity of several extensive and well-known chemical works. The colliery is now open and in working order, and several seams of coal have been proven.
For further particulars, apply to Mr. JOSEPH HALL, Flint, North Wales.**

BARTYES.—FOR SALE, WORKS, with PLANT, suitable for CRUSHING and BLEACHING the above material.—For particulars, apply to Mr. WILLIAM WESTON, 3, Osborne-terrace, Southsea, Hants.

FOR SALE.—A QUANTITY of unused DOUBLE-HEADED RAILS, 70 lbs. per yard; also some FLANGE RAILS, 70 and 75 lbs. per yard.—Apply to Mr. E. D. TILLY, 26, Lombard-street, London, E.C.

GREEN SLATES.

GREEN SLATES OF ANY SIZE, and of the CHOICEST COLOUR and QUALITY, can now be OBTAINED from the DOROTHEA WEST SLATE COMPANY (LIMITED), CARNARVON. The "CHARING CROSS HOTEL," "STAR AND GARTER HOTEL" (Richmond), "LONDON-BRIDGE HOTEL," and many other public buildings, are covered with these elegant slates.
Orders will be executed in regular succession.
Apply to Mr. THOMAS HARVEY, General Manager, 9, Segontium-terrace, Carnarvon, or 33, King-street, Cheapside, London.

FOR SALE.—TWENTY BROAD-GAUGE COAL WAGONS, TO CARRY TEN TONS. Length, 15 ft.; width, 10 ft.; depth inside, 2 ft. 6 in.; wheels, 3 ft. diameter, with cast bosses.—Further particulars may be obtained from Mr. NEAL, 15, Park-street, Westminster.

RAILWAY WAGONS TO LET.—TEN 12-ton BROAD GAUGE RAILWAY WAGONS, with tail boards, side flaps, and breaks, TO BE LET, either on simple or redemption hire.
For particulars, address "The Secretary," South of England Wagon Company (Limited), 37, Great George-street, Westminster, S.W.

TO BE SOLD, CHEAP, a PORTABLE ENGINE of 14-horse power, double cylinder, of first-class construction, workmanship, and material. Winding gear to order. SECOND-HAND PORTABLES FOR SALE.
Apply to Messrs. BARROWS and CARMICHAEL, engineers, Banbury, Oxon.

DÖRING'S PATENT ENGINE FOR TUNNELLING, MINING, QUARRYING, and BLASTING in OPEN CUTTING.

A SAVING OF THIRTY TO SIXTY PER CENT. in labour effected where the cost of adit exceeds £2 per fathom.
TIME for DRIVING ADIT REDUCED FIFTY TO SEVENTY-FIVE per cent.
"These drilling engines are in daily use at the zinc mines of the Vieille Montagne," &c.—Times, Dec. 24, 1866.

"One of these machines was shown to work in an exceedingly satisfactory manner upon hard granite."—Engineering, Dec. 21, 1866.

Particulars may be obtained of Mr. DÖRING, or Mr. GROVER, 30, Duke-street, Westminster.

ROBERT LIBBY AND SON, MINING AND SHAREDEALERS, &c., CAMBORNE, CORNWALL.

Date.	Mines.	Tons.	Amount.	Purchasers.
June 13—	Minera Boundary, &c. 25	.....	£13 2 6	Walker, Parker, & Co.
	—Bryn Gwasog	.....	13 11 6	—
	—Whitewell	.....	12 6 6	Adam Eytton.
	—ditto	.....	12 6 6	Runcorn Smelting Co.
14—	Great Lacey	.....	22 15 6	Burry Port Co.

Date.	Mines.	Ta. c. q. lbs.	Price p. ton.	Amount.	Purchasers.
June 15—	Wheal Uny	.....	8 13 0	9. £49 0 0	—
	—Gt. Wheal Vor	.....	56 10 0	21. —	£3131 17 2
	—Kitty (St. Agn.)	.....	20 19 3	2. —	1112 7 8
	—Penhalls	.....	9 1 0	12. —	500 16 7

COPPER ORES.

Sampled June 5, and sold at Liverpool June 19, by Mr. JAMES LEWIS:—

Mines.	Tons.	Price.	Purchasers.
Knockmahon, ex Island Queen	£7 5 6	.....
ditto	7 5 6	.....
ditto	7 5 6	.....
ditto	6 6 6	.....
ditto	6 6 6	.....
ditto	7 13 6	.....
ditto	7 12 6	.....

COPPER AND COPPER ORES.

Sold at LIVERPOOL, from June 1 to June 14.

Messrs. Pitcairn-Campbell and Co. (June 14) write:—Further depression has been manifested in the market during the fortnight, and the heavy charters again advised by the mail of May 2 from the West Coast, S.A.—3000 tons pure copper—will, we fear, confirm the tendency. Lower prices have been accepted, and our quotations, as follow, are somewhat nominal—Bars, 70s. to 71s.; Ingots, 79s. and 80s.; ore and regulus, 14s., and 14s. 3d.; Barilla, 15s. to 15s. 6d. Sales since our last have been—

Mine or ship.	Tons.	Price.	Mine or ship.	Tons.	Price.
Bars—Duch. Sutherland	31	£71 0 0	Reg.—Second hands	300	£2 0 14 3
Bars—Corinna	170	71 0 0	Reg.—Second hands	675	Private.
Ing.—San Luis	50	80 0 0	Reg.—Second hands	273	ditto
Reg.—Second hands	50	71 5 0	Reg.—Second hands	226	ditto
Reg.—Second hands	582	0 14 3	B'la.—Flechero	300	190 frs.
Reg.—Second hands	337	0 14 3	Ore.—At Swansea	1244	0 14 6

Arrivals during the fortnight—Paraguay, Valparaiso, 50 tons bars; Flechero, Islay, 340 tons Barilla; M. A. Wirtle, Tome, 20 tons bars; Valparaiso, Valparaiso, 50 tons bars; Rapido, Valparaiso, 27 tons bars; Tocopilla, Tocopilla, 299 tons ore and 420 tons regulus; Sealtoller, Islay, 35 tons Barilla. At Swansea—Dorothy Thompson, Carizal, 674 tons regulus; Eliz. Hargrove, Caldera, 9 tons ore and 331 tons regulus.

Stocks of copper (Chilian and Bolivian) in first and second hands likely to be available are—

Mine or ship.	Ores.	Regulus.	Bars.	Ingots.	Barilla.
Liverpool	2840	3596	4657	720	386
Swansea	4648	1774	40	40	64
Have	—	—	4200	450	—

Total 7388 5370 8877 1170 450

Representing about 14,150 tons of fine copper, against 13,000 tons June 15, 1866; 13,900 tons June 15, 1865; and 10,650 tons June 15, 1864.

COPPER ORES.

Sampled June 6, and sold at the Royal Hotel, Truro, June 20.

ditto	120	4 16 0	ditto	62	4 15 6
ditto	118	5 10 0	Brookwood	90	4 3 6
ditto	117	4 0 6	ditto	74	3 13 0
ditto	115	5 15 0	ditto	61	3 15 0
ditto	111	3 17 0	ditto	50	2 14 0
ditto	109	5 9 6	ditto	44	10 0 0
ditto	107	5 11 6	Okel Tor	88	3 5 6
ditto	105	3 4 0	ditto	80	1 12 6
ditto	103	5 11 6	ditto	78	1 12 6
ditto	102	2 6 6	ditto	28	7 10 0
ditto	90	4 6 6	Wheal Friendship	36	2 8 6
ditto	68	2 17 6	ditto	33	11 14 6
ditto	58	2 13 0	Bedford United	68	3 11 6
ditto	47	1 13 0	ditto	66	2 19 0
ditto	38	13 10 6	Prince of Wales	49	9 15 6
ditto	27	13 10 6	ditto	45	9 13 6
ditto	21	7 8 6	ditto	38	6 5 0
Marko Valley	86	2 15 6	Gawton	55	3 11 6
ditto	67	5 11 6	ditto	50	2 3 6
ditto	62	5 0 6	ditto	24	6 15 6
ditto	60	5 5 6	Gunnislake (Gawton)	5	5 0 0
ditto	51	1 11 0	Furston	26	5 5 0
ditto	44	5 6 6	Sortridge Consols	24	2 15 6
East Caradon	89	3 12 6	Wheal Edward	9	1 11 6

WATSON AND CUELL'S MINING CIRCULAR.
WATSON AND CUELL,
MINING AGENTS, STOCK AND SHARE DEALERS, &c.
1, ST. MICHAEL'S ALLEY, CORNHILL, LONDON.

MESSRS. WATSON AND CUELL having made arrangements for transferring their weekly Circular, which has had so large a circulation during the past ten years, to the columns of the *Mining Journal*, their special reports and remarks upon mines and mining, and the state of the share market, will in future appear in this column.

In the year 1849, when Cornish mining was almost unknown to the general public, attention was first called to its advantages, when properly conducted, in the "Compendium of British Mining," commenced in 1837, and published in 1843, by Mr. J. Y. WATSON, F.G.S., author of "Gleanings among Mines and Miners," "Records of Ancient Mining," "Cornish Notes" (first series, 1862), "Cornish Notes" (second series, 1863), "The Progress of Mining," with statistics of the mining interest, annually for 21 years, &c., &c. In the Compendium, published in 1843, Mr. WATSON was the first to recommend the system of a "division of small risks in several mines, ensuring success in the aggregate," and Messrs. WATSON and CUELL have always a selected list on hand. Perhaps at no former period in the annals of mining has there been more peculiar need of honest and experienced advice in regard to mines and share dealing than there is at present; and, from the lengthened experience of Messrs. WATSON and CUELL they are emboldened to offer, thus publicly, their best services to all connected with mines or the market, as they have for so many years done privately, through the medium of their own Circular.

Messrs. WATSON and CUELL transact business in the purchase and sale of mining shares, and other securities, payments of calls, receipt and transmission of dividends, obtaining information for clients, and affording advice, to the best of their knowledge and judgment, based on the experience of more than 30 years active connection with the Mining Market.

Messrs. WATSON and CUELL also inform their clients and the public that they transact business in the public funds, railway, docks, insurance, and every other description of shares dealt in on the Stock Exchange.

Messrs. WATSON and CUELL are also daily asked their opinion of particular mines, as well as to recommend mines to invest or speculate in, and they give their advice and recommendations to the best of their judgment and ability, founded on the best practical advice they can obtain from the mining districts, but they will not be held responsible, nor subject to blame, if results do not always equal the expectations they may have held out in a property so fluctuating as mining.

Messrs. WATSON and CUELL having agents and correspondents in all the mining districts, and an extensive connection among the largest holders of mining property, have the more confidence in tendering their advice on all matters relating to the state and prospects of mines and mining companies, and are able to supply shares in all the best mines at close market prices, free of all charge for commission.

PRINCE OF WALES.—One of the largest shareholders has done this week what we should advise every shareholder to do—i.e., he has spent a day in inspecting and examining the mine for himself; and as he has written us a full account of his visit, and gives us liberty to make what use we please of his communications, we shall give our readers some extracts from them, merely premising that the writer has been nearly 20 years connected with mining. First, in reference to any increase of water when the north lode is cut, he says—"The large quantity of water issuing from the bottom of the 55 east, as it did from the 45 east, proves, beyond doubt, that the north lode has been unwatered through its junction with the south lode some fathoms to the east." (This junction was referred to by us some months ago.) "Capt. Gifford says that the engine is now working only four strokes a minute, instead of ten or twelve, which it is capable of doing, and would meet any emergency the cutting the north lode is likely to create." "All the indications of a lasting mine and continuous courses of ore are clear to any impartial inspector of this property; and my advice is that you recommend your friends to hold these shares, as an investment second to none, in the prospect of increasing and continuous dividends." "I am not over sanguine, after my experience in mining, but I cannot report too favourably of this mine, and be considered as exaggerating the facts." "There is a fine pile of rich ore ready for sampling, and after a month or two the returns will be considerably increased, though Capt. Gifford treats the returns as a secondary consideration to opening the mine scientifically, and placing the workings on a permanent basis, as he considers it will one day be a second Devon Great Consols. He appears to have anticipated every requisite for regular and progressive working; his plan for ventilating the mine thoroughly is very simple, and must be effectual; and his proposed adaptation of the present and additional water-power to three 50-foot wheels, for pumping and other work when required, cannot be over-rated in value to the future of the mine; indeed, there does not appear to be a single *contre temps* that the most ingenious 'bear' can suggest to arrest the progress of this young mine." In reference to West Prince of Wales, the writer also visited this, and says—"I shall bring with me some specimens of rich copper ore I broke from the adit, which will astonish you, and give promise of a rival to the sister mine, adjoining to the east, as the present shallow workings sufficiently prove. This will be the next trump card you will turn up for the benefit of your friends."

WEST MARIA AND FORTESCUE MINE.—The periodical meeting of shareholders was held on Wednesday, among those present being Messrs John Bayly, Plymouth; J. E. Watson, Glasgow; C. Tytherley, Exeter; T. Nicholls, Tavistock; M. Loom, Jun., Liskeard; P. M. Hadley, Exeter; J. J. Hamley, Plymouth; Capt. W. Skewis, and Capt. J. Donnel. This mine is an example of what perseverance often accomplishes in mining adventures. At the commencement there were some who expected that great profits would at once be made, and when this was not done the mine was run down, and represented as a blank. The great body of shareholders, however, determined to persevere, and after a large outlay have apparently succeeded in making a valuable mine. They are to be congratulated on their success. Many mines have been stopped in circumstances similar to those through which the West Maria and Fortescue has passed. Mr. Watson the pursuer, produced the accounts, which showed a credit balance of £200, 15s. 9d. A discussion followed concerning several of the items, but it was eventually proposed by Mr. Hadley, and seconded by Mr. Tytherley, that the accounts should be passed. Mr. Watson read the report of Captains W. Skewis and J. Donnel, the agents of the mine. Mr. Tytherley said there was nothing in the report as to when the next sampling would take place. He thought a statement in reference to the ores of the mine should be made. Mr. Hamley quite agreed with the last speaker, and after a few remarks from Messrs. Hadley and Nicholls, the following was added to the report—"In about three weeks we expect to sample from 70 to 80 tons of copper ore, in addition to the tributers' and the mangle ores." A short conversation ensued, reference being more particularly made to the present position and prospects of the mine, which were considered to be very satisfactory. Mr. Nicholls, after some calculations had been made, proposed that a call of 2s. per share should be made to meet the expenses of the mine for the next four months. Captain Skewis seconded the proposition, and on being put to the meeting it was carried unanimously. This having concluded the business, the proceedings were brought to a close with a vote of thanks to the Chairman. The shareholders subsequently dined together in the counting-house, Captain Skewis presiding. Mr. Hamley, in eulogistic terms, proposed the health of Mr. Bayly, who returned thanks, and said he had been connected with the mine for a quarter of a century, and firmly believed that all the preliminary operations in the mine tended to one point—a dividend. They had not received the assistance of those who ought to have come forward in the interest of the mine, and that was the reason why they were compelled that day to make a call instead of to declare a dividend. He had spent a good deal of money in the mine, and he should never desert it while captains so worthy as Captains Skewis and Donnel spoke with any confidence, or held out any hope. After a few other toasts had been given and responded to, the party separated.—*Western Daily Mercury.*

We are glad to learn that Dr. C. Le Neve Foster, the secretary of the Royal Cornwall Polytechnic Society, so well known for his successful tuition of mining classes in West Cornwall, and lately appointed a juror at the Paris Exhibition, has recently received a very lucrative appointment in Turkey, and will proceed there shortly.

Mr. William Bryant, who has had great experience in the management of mines both at home and abroad, has received the important appointment of tollier for the mineral property of Viscount Falmouth, in the place of Mr. Theophilus Michell, who held that office nearly 20 years. Mr. Michell succeeded Capt. John Lean, who was preceded by Mr. John Trestrail, of Chelvalah.

With regard to relinquishments of mine shares, it has been frequently held (erroneously, however) that adventurers cannot relinquish their shares without first of all paying the calls in arrear. This is quite contrary to the law. A shareholder may at any time cease and determine his responsibility, and resolve to incur no further cost, by sending in the usual relinquishment to the pursuer, who is bound to accept the same. He cannot, however, transfer his shares to anyone else until his calls have been paid.—*West Briton.*

CORNISH PUMPING ENGINES.—The progressive increase in depth and extent of the Cornish mines has introduced an intermittent system of pumping, because the engines that would be ultimately required cannot be applied to lesser depths and smaller quantities of water with any degree of propriety. Their engines, therefore, stand still for some seconds of minutes between every complete stroke, until the valve gear is released by the action of the governing piston and cylinder, in order to allow a sufficient accumulation of water to fill the pumps. There is an inconvenience in this mode of pumping quite independent of the kind of engine adopted. That is to say, a column of water, perhaps several hundred fathoms in length, has to be put into rapid motion from a perfect state of rest at every return stroke. Such a column will resist as if it were a solid body, and must, therefore, cause a considerable loss of power, not effectively employed in raising the water. Whereas, in most of our best pumping engines provided with double and treble pump barrels with a single suction and force pipe the column of water is in constant motion, and there is no loss of power from intermittent action. I do not mean to say that the continuous system of pumping is at all applicable to the Cornish mines, but if it could by any means be adopted by introducing smaller coupled engines working alternately, then, indeed, the Cornish type would show a very great superiority over the rotative engine. I have myself long since made the reverse experiment by causing the oldest form of Cornish engine with open cylinder to drive a crank with perfect uniformity of motion, by so governing steam and injection as exactly to balance the pressure of the atmosphere, substituting, of course, the modern parallel motion for the old-fashioned chains. Economy of steam was not my object, as I had abundance at command, but the cost of the engine was comparatively trifling.—*HENRY W. REVELEY, of Reading: The Engineer.*

APPLICATIONS FOR SHARES.—Where a person has made an application for shares, accompanied by a payment of the required deposit, some notice of the acceptance by the company of that application is necessary in order to bind the applicant, and the mere entry of his name upon the company's register is immaterial. This was the holding of the Lords Justices in *re The Richmond Hill Hotel Company (Pellatt's case)*.

THE ROSSA GRANDE GOLD MINING ESTATE.

Rossa Grande Gold Mining Company
(LIMITED).

Capital £100,000, in 100,000 shares of £1 each.

SECOND ISSUE.

ISSUE OF REMAINING SHARES,—viz., 30,000, WHICH WILL COMPLETE THE AUTHORISED CAPITAL OF £100,000.

Deposit 10s. per share, and 1s. per share premium.

DIRECTORS.

CHAIRMAN—HENRY HAYMEN, Esq., Chairman of the Don Pedro North del Rey Gold Mining Company (Limited).

ROBERT HESKETH, Esq., Director of the Don Pedro North del Rey Gold Mining Company (Limited).

ROBERT WALLEN JONES, Esq., Director of the European Assurance Society, 7, Ormonde-terrace, Regent's-park.

GEORGE NOAKES, Esq., Managing Director of the Great Wheel Vor United Mining Company, and of the Chontales Gold and Silver Mining Company, Gresham House.

ADAM SCHOALES, Esq., Colville-gardens, Bayswater.

CHARLES WILLIAM WHITE, Esq., Messrs. Bakers, White, and Morgan, Hibernia-chambers, London Bridge, and Croydon, Surrey.

AGENTS IN BRAZIL—Messrs. ALEXANDER FRY and Co.

CHIEF MINING ENGINEER—Capt. B. BROKENSHAR.

BANKERS—Imperial Bank, Lothbury.

BROKER—JOHN H. GOLDING, Esq., 3, Warrford-court.

SOLICITORS—Messrs. HANCOCK, SHARP, and HALES, 25, Birch-lane.

SECRETARY—JOHN E. DAWSON, Esq.

OFFICES,—No. 9, SISE LANE, BUCKLESBURY, LONDON, E.C.

This company was established in January, 1864, for the purpose of working certain gold mines, which will be found fully described in Captain Thomas Treloar's report, annexed hereto.

During the time the company have been waiting for legal possession, a new 12-head stamping mill has been erected, and work, preparatory to the opening of the mines, carried on upon a small scale.

The company having obtained legal possession of the property, Messrs. Henry Haymen and Robert Hesketh, Directors of the Don Pedro North del Rey Gold Mining Company (Limited), have joined the board, and instructions have been sent out to carry on the works with all possible despatch, to promote which object the directors have decided to appoint a superintendent, so that the mining captain's time may be entirely devoted to laying out and developing the mines. The appointment of superintendent has been offered to a gentleman who has been connected with Brazilian gold mining upwards of 30 years, and the directors have reason to think that he will accept the appointment.

The directors have instructed him to commence operations on the unexplored Jacotinga formation, from which satisfactory results are looked forward to, considering its close proximity to the Gongo Soco lode.

Prospectuses and forms of application can be obtained at the offices of the company; or of the solicitors, bankers, or broker.

REPORT ON THE ROSSA GRANDE GOLD MINING ESTATE,
PROVINCE OF MINAS GERAES, BRAZIL.

REPORT OF CAPTAIN THOMAS TRELOAR.

Sabara, April 10, 1862.—Having, in accordance with your request, examined the Gold Mining Estate of Rossa Grande, in the province of Minas Geraes, Brazil, I have now the pleasure of addressing to you my report thereon.

Rossa Grande Estate is situate between the celebrated gold mining estate of the St. John del Rey Mining Company and Gongo Soco. Its distance from the former is about 20 miles in a north-easterly direction, and from the latter about three miles in a south-westerly direction. Its distance from the capital of the province—Ouro Preto—is about 40 miles northerly, and it is within a few hours' walk or ride of the City of Sabara, the populous town of Caethe, and the villages of St. John de Morro Grande, Socorro, Morro Vermelho, and others.

Rossa Grande is one of the famous mining estates in the great gold mining district of Minas Geraes, and its reputation arises from its fourfold advantages of rich auriferous lodes, good water-power, extensive forests, pastures, and arable land, and convenient position for labour, materials, and provisions. In respect to pasture and tillage ground, I believe it is superior to any other gold mining estate in the gold mining district.

The estate is very extensive. It stretches on both sides of the Serra de Socorro, leading to Gongo Soco, and the boundaries are well defined. A river and other streams run through the property, from which sufficient water can be obtained, at a considerable elevation, for mining operations on a large scale.

The road from Gongo Soco to the St. John del Rey Company's mine, and to the City of Sabara, passes through the estate.

The rock is chiefly clay and talcose slate, of that character which is highly congenial to auriferous formations; and, when I add to this that the lodes are not very distant from the junction of the slate and granite, every experienced miner will understand its significance. Gold mines in Brazil, as well as copper and tin mines in England, are valueless when very far from the mysterious effect of the junction of these two great rocks.

The estate contains three distinct auriferous rock formations, which can be traced for miles, besides a jacotinga formation in the direction of Gongo Soco, unexplored. I may also mention that at a place called Palmatal, on the estate, diamonds are said to have been found, and the diluvial and alluvial deposit in the valley is believed to contain sufficient gold to make it remunerative for working.

The rock formations may be said to be parallel, so far as yet opened, both in direction and dip, the direction being easterly and westerly, and the dip about 40° southerly. But the lodes are so far apart from each other, that the workings upon one will be no impediment to the operations upon its neighbours.

The outcrop and the excavations upon the first and second are at a considerable elevation above the valley, and above where the lodes cross the valley; consequently, the advantages for drainage by adits and openings on the lodes are of no common order. But the workings on the third formation are in the valley: so here pumping machinery, instead of adits, must be had recourse to.

The first rock formation, or upper lode, is about 6 ft. wide. It consists chiefly of white quartz and iron, and it has yielded from 4 to 40 oits., or from 1 oz. to 5 ozs. of gold per ton. An adit, which occupied the proprietors five years in driving, reached to within 6 fms. of the lode, when, owing I believe to mismanagement, a crash occurred, extended to the workings of the lode, and the mine was, therefore, stopped; it has not been opened since. I need not say a difficulty of this kind would be easily overcome by an English mining company and Cornish miners.

The second rock formation, or middle lode, varies in size from 6 to 12 ft. wide; it is composed chiefly of yellow quartz and auriferous arsenical pyrites. Frequently lumps of gold have been found in it, and the ore in the Olhos, or swells, has afforded 50 oits., or upwards of 6 ozs., of gold per ton. The workings on this lode are at a lower horizon in the mountain than those on the upper one, and the proprietors, though greatly impeded and finally stopped by water, realised sufficient to pay all expenses and leave a profit, refused to let this mine for a rent of £6500 per annum. It has not, I believe, been wrought since this period.

The third, or lower rock formation, is of greater magnitude than the other two together, being about 36 ft. wide. Its composition is mainly quartz and brown oxide of iron, designated by the Brazilians "Caco." In depth this formation will, probably, graduate into a

pyritic rock formation, similar to that of the St. John del Rey Company's Mine, Morro Velho. The whole mass of this lode is auriferous, and portions of it have yielded 50 oits. of gold per ton. The excavations are in the valley, and as they were large, rudely secured, and water had appeared, the proprietors became alarmed for the safety of their people, and abandoned it in consequence. This lode should receive early attention from a company.

I abstain from holding out any expectations from the jacotinga formation, the diamonds, and the deposit in the valley.

Confining, therefore, my calculations to the three rock formations, and carefully considering every particular as to cost, capabilities of the lodes, and their general auriferous quality, I am of opinion that under the management of an honest, experienced mining engineer, the following estimate may be safely relied upon:—

Years.	Working cost.	Gold returns.	Estimated profit.
First year	£10,000	—	(five years)
Second year	25,000	£22,500	
Third year	45,800	67,500	Average profit.
Fourth year	70,000	112,500	first five years.
Fifth year	80,000	140,625	£22,400 p. annum.
	£238,000	£243,125	— £45125.

Equal to an average of 56 per cent. per annum, upon a capital of £40,000.

In the fifth year, I estimate that 250 borers would be employed, 75,000 tons of ore treated, which would yield 5 oits., or a little above 1 oz. of gold per ton, and stamping-mills erected to the extent of 110 heads. Some are of opinion that, once the lodes opened, the ore so raised will afford 1 ounce of gold per ton; but I differ from them. After the second year, the supply would, I believe, be sufficient to allow the ore raised to be picked to the extent of 10 per cent., and the picked ore I have only estimated at 5 oits. of gold per ton.

The existing stamping-mills, dwelling-houses, &c., on the property are in a very dilapidated state, but may easily be restored.

I have known Rossa Grande for the last 28 years, therefore I have witnessed what I have stated. Rossa Grande is now in the same condition as some other gold mining estates in the rich gold mining field of Minas Geraes. Like them, it only requires capital, economy, and practical experience to make them as legitimately remunerative as the rock mine of the St. John del Rey Mining Company.

Rock formations are preferable, in my opinion, to jacotinga formations. The latter are, doubtless, more tempting to speculators, because the precious metal is found in bunches. One year the mine may be very poor, the next very rich; but rock formations are more constant and sure. Once the average auriferous quality of a rock formation can be safely estimated, the cost and the returns come within the range of safe calculations. Of the rock formations in Brazil it may be truly said that mining in them partakes more of the character of commercial enterprise than that of mining adventures.

Another circumstance in connection with gold mining in Brazil is well worthy of remark in this place. Companies now have the advantage of past experience. When I went to Morro Velho, in 1844, that mine was in a miserable condition, for want of experience in handling it. By figures I showed what the mine was capable of, under certain conditions; these figures are on record; I advised a course, it was followed, and the result has been the prosperous state of the St. John del Rey Company since that period.

I have only to add, that almost adjoining the Rossa Grande estate is the gold mining estate of Juco Vieira. It has good reputation, and on it are an excellent stamping-mill of 12 heads, a flour mill, some good dwelling houses, &c. The mine is in the valley, and the workings, though not deep, are down to water—a Brazilian's stopping point, for want of knowledge of pumping machinery. I believe the proprietors would be glad to dispose of the estate for a little more than the value of the plant; and as it would be very advantageous to Rossa Grande I would advise purchasing it.

I am, dear Sir, yours faithfully,

THOMAS TRELOAR.

For 16 years Chief Mining Engineer to the St. John del Rey Gold Mining Company, now Chief Mining Engineer to the Don Pedro North del Rey Gold Mining Company (Limited), and the Anglo-Brazilian Gold Company (Limited).

Notices to Correspondents.

Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be filed on receipt: it then forms an accumulating useful work of reference.

FORFEITURE OF SHARES.—Will you kindly inform me whether I have any remedy under the following circumstances:—I held 25 shares in a cost-book mine, which were for a long time unsaleable, and being unable to pay the calls, mine, which were, forfeited at meetings specially called for that purpose. Since then the shares have been in demand on the market, and are now eagerly bought at a considerable advance on the amount for which they were forfeited. These shares have been put up for sale at public auction, but in consequence of the reserve price placed on them by the committee being above the market price, they were not sold. Can I recover from the committee the difference between their reserve price and the calls due, or must I wait until the shares are sold?—Y.

IRON AND IRON SMELTING.—J. J. (Crolston).—The best work to procure on the nature and value of the different iron ores of Great Britain, and the relative cost of smelting the same, is Dr. Percy's "Metallurgy of Iron and Steel," published by John Murray, of Albemarle-street.

SHARE DEALING.—We never interfere in the sale or purchase of shares; neither do we recommend any particular mine for investment or speculation, or broker through whom business should be transacted. The addresses of most of the latter appear in our advertising columns.

THE MINING JOURNAL, Railway and Commercial Gazette.

LONDON, JUNE 22, 1867.

"HALOXYLIN"—NEW BLASTING POWDER.

The vast importance to the miner of a thoroughly good blasting powder causes considerable interest to attach to all inventions relating to the manufacture of that article, especially when additional advantages are obtained without a corresponding increase in the cost of production. For some time past a new blasting compound—the novelty of which, however, consists rather in the mode of manipulating the materials than in the materials themselves—has been extensively used in the mines and quarries of the Austrian empire, under the name of haloxylin, which appears to have given great satisfaction, both from the quantity of work done and the manner of doing it. It is one of those powders which has the property of merely burning away when in the open air, and yet exerting a great rending force when properly confined in the blast-hole; whilst it is not liable to ignite spontaneously, and cannot be exploded by percussion or friction. The smoke resulting from the explosion is less in volume than usual, and, in addition to this, it is free from the usual suffocating character of powder smoke; in fact, there is nothing in the residue injurious to health, or even disagreeable, so that operations can be carried on without intermission. A pound of haloxylin will occupy nearly twice the space of 1 lb. of gunpowder; and as haloxylin does fully two-thirds the amount of work, bulk for bulk, as any powder now in use, it follows that a material saving of cost is effected. It is claimed that haloxylin has a tendency to cleave rather than scatter or crumble the rock in which it is used; but as this is a property possessed equally by all slow-burning powders, it may well be passed over; but the circumstance of the explosion leaving the rock free from soil or stain would, no doubt, be a great advantage in salt mines, in marble quarries, and where metallic traces should be preserved from discoloration.

The invention of haloxylin is due to Messrs. WILHELM and ERNST FEHLEISEN, of Styria; it consists in manufacturing an explosive compound of sawdust, charcoal, saltpetre, and, usually, ferrocyanide of potassium, although the latter ingredient is sometimes dispensed with. The proportions in which they are combined are generally about 9 parts by weight of sawdust, 3 to 5 parts of charcoal, 45 parts of saltpetre, and, when the ferrocyanide of potassium is used, 1 part of ferrocyanide of potassium. The sawdust, which if not from a non-resinous wood should have the resin extracted from it, is passed through a fine sieve, and then mixed with finely-powdered charcoal (from light woods) and powdered saltpetre. The mass is moistened with about a quart of water to the hundredweight, and then stamped or crushed. By this means the whole is rendered homogeneous. The mass is now moistened again with water under ordinary circumstances, and with a weak solution of ferrocyanide of potassium when a quick powder is required. The subsequent processes of caking, granulating, and drying are conducted in the same way as is usual in the manufacture of ordinary powder, and the grains can, if desired, be polished as usual, but this is found to be unnecessary.

Owing to the great cost of carrying explosive materials, the importation of haloxylin from Germany is, commercially, out of the question; it is, therefore, proposed to manufacture it in this country. There are at present three factories in Styria, Hungary, and Moravia respectively, yet they are scarcely able to keep pace with the continually increasing demand, and it is to this circumstance alone that is to be attributed the fact that until now no efforts have been made to introduce it into England. The Hunyadi board of the Kronstadt Mining and Smelting Company made careful comparative experiments in their Telek iron mines, and obtained with half the weight of haloxylin the same results as with the powder in ordinary use; but such a high duty as this probably resulted from some exceptional circumstance not having been taken into account; that 2 lbs. of haloxylin, however, will do as much as 3 lbs. of other blasting powder appears to have been well ascertained. The Austrian State Railway Company certify, as the result of the experiments made at their mines in the Banat, that the trials in the coal mines of Doman took place in a cross-course when very dense vapours prevailed; nevertheless, the place could be approached immediately after the blasting, no smoke being left. As to the effect, 2 to 2½ ozs. of haloxylin are equal to 3 to 3½ ozs. of blasting-powder. The result of the experiment with this substance showed that a firmer enclosing wall was required than with powder; the effect upon the rock was more cleaving than crushing, and on account of this property it promises considerable advantages over powder for the blasting of coal. In the ironstone mines of Moravia the experiment was made in less firm rock, with large boulders, and a charge of 25 to 30 lbs. of haloxylin produced an effect exceeding by one-third that of gunpowder. Such evidence as this is sufficient to prove that haloxylin has, at least, some advantage over ordinary blasting-powder; and when the quantity of blasting-powder annually used in Great Britain is taken into consideration, it will be readily understood that, assuming even the smaller estimate of 30 per cent. of saving, the inducement for the miners of this country to adopt it will be ample to ensure, under any circumstances, a fair remuneration to those undertaking the manufacture.

EXPORTS OF PIG AND PUDDLED IRON.—The quantity of pig and puddled iron exported from the United Kingdom has largely increased this year, having amounted in April to 60,939 tons, as compared with 42,922 tons in April, 1866, and 54,179 tons in April, 1865; and in the four months ending April 30 to 185,897 tons, as compared with 130,193 tons to the corresponding date of 1866, and 143,172 tons to the corresponding date of 1865. The exports show some progress to France and the United States, but the great increase in the demand has proceeded from miscellaneous sources. The value of the pig and puddled iron exported to April 30 this year was 539,234£, as compared with 452,230£ to the corresponding date of 1866, and 407,229£ to the corresponding date of 1865. The quantity of pig and puddled iron exported in 1866 was 497,138 tons, as compared with 547,641 tons in 1865, 465,985 tons in 1864, 466,423 tons in 1863, 444,708 tons in 1862,

388,004 tons in 1861, 342,566 tons in 1860, 316,376 tons in 1859, 363,143 tons in 1858, and 422,086 tons in 1857. The value of these 10 years' exports was as annexed:—1866, 1,544,647£; 1865, 1,599,491£; 1864, 1,412,352£; 1863, 1,287,968£; 1862, 1,203,641£; 1861, 1,044,304£; 1860, 974,065£; 1859, 901,929£; 1858, 1,084,170£; and 1857, 1,609,115£.

FUEL FOR THE INDIAN RAILWAYS.—At the existing rate of freights coal and coke, before they are landed in India, cost 50s. per ton, and the extra charges, so far as the Western and Southern districts are concerned, raise the cost to about 60s. The East Indian Company have exceptional advantages from the coal fields near Calcutta, and the cost to them of coal per train mile is 3½d., while on the Great Indian Peninsula it is 1s. 6½d. Coal from Australia and Labuan is being tried, but wood is looked to as the resource that must in many cases be relied upon, and with that view planting on an extensive scale should take place, it is considered, annually for several years to come.

FRictionAL ELECTRICITY WITHOUT FRICTION.

It is only a few weeks since that our Special Correspondent at the Paris Exhibition gave a very interesting account of a new dynamo-magnetic machine, invented by Mr. W. Ladd, of Beak-street, London, the great recommendation of which was that the electricity was produced without the consumption of material—the quantity of electricity produced being in proportion to the power applied in producing it. For compactness and efficiency Mr. Ladd's invention will, probably, long enjoy the most prominent position, but it is not the sole machine in which electricity is produced by the consumption of power alone. Whilst Mr. Ladd has been occupied with the magneto-electric machine, Prof. W. Holtz, of Berlin, has been achieving equally important results with the frictional machine, so that it would really appear that we have produced that marvellous fluid by the consumption of material, simply because we were but imperfectly acquainted with its nature. In appearance, Holtz's machine resembles the ordinary plate machine—in fact, the most prominent part is a glass disk, which is mounted and revolved in the usual manner. But the plate is thinner—the thinner the better—and as it is desirable to revolve it very rapidly, a multiplying wheel is connected with the plate, so that the speed may be increased to the extent desired. The machine, however, has really but little resemblance to the plate machine, for it has no rubbers; it produces torrents of frictional electricity, but the electricity is not generated by friction; there is no friction about the machine, except at the axle bearings. The plate revolves in free air, and nothing should touch it. In the place of rubbers are what are called inductors, which are strips of paper 3 or 4 in. long, and about 1 in. wide. They are supported and insulated on pieces of glass, which are of spear-head form. The inductor is made complete by pasting on to the paper pointed pieces of cardboard, which project beyond the glass spear heads an inch or two. The spear heads are attached to the framework of the machine, so that they shall be parallel, and as near as possible, to the plate on its crank side. Opposite the inductors, at the front of the plate, are the comb points, which serve to collect the electricity, and convey it to the conductors for use. Each inductor is furnished with its set of points. The combs are attached to brass rods, terminated at their other ends by brass balls. The rods are fastened to the framework of the machine, and are insulated from it. The balls at the ends of the rods may be connected to each other in any desired order by means of bent wires.

To obtain the electricity, one of the inductors is slightly charged, by means of an excited rod of hard rubber, glass tube, or otherwise, and turning the crank. Its power progressively increases for about a minute, and until it reaches the maximum, when it furnishes a steady supply of electricity as long as the disk is revolved. The amount of electricity, which a disk of only 2 ft. in diameter will yield, is enormous.

To explain the action of the machine three elements must be considered—the inductor, the plate, and the comb points. If a pointed wire be brought opposite an electrified body—as, for example, a prime conductor—the positive electricity of the prime conductor attracts the negative of the wire, and repels its positive, and a stream of negative electricity flows out of the wire at its point, while the positive flows to the opposite direction. Now, suppose a sheet of glass be interposed between the point and the conductor. The attraction of the positive electricity of the conductor for the negative of the wire is by no means lessened; the negative is accumulated towards the point, and by reason of its higher tension flows out on to the glass. But the glass is impervious to the electricity, and it remains on its surface; the glass becomes electrified. In Prof. Holtz's machine we have the electrified body in the inductor, the wire point opposite, and the glass plate interposed. Suppose inductor No. 1 electrified positively, this positive electricity attracts negative electricity out of the comb points on to the interposed plate. The plate moving on the part electrified negatively comes opposite card points of inductor No. 2. Here the negative electricity of the plate draws out of the card points positive electricity on to the glass, and inductor No. 2 becomes charged negatively, while the glass is negatively charged on the further side, and positively charged on the near side. Inductor No. 2 being charged negatively draws positive electricity out of comb points No. 2, and neutralises the negative drawn from comb points No. 1. Card points No. 3 discharge negative electricity on the plate, and inductor No. 3 becomes positive, and, like No. 1, draws negative electricity out of the corresponding comb point. It will be seen that the alternate inductors are oppositely electrified, and that their corresponding comb points give out or receive accordingly. By varying the manner of connecting the balls at the extremities of the comb points a considerable variety of changes in the relation of the quantity and intensity may be obtained. These variations are somewhat similar to those which are secured by varying the order of connecting the elements of the galvanic battery. The greatest intensity is obtained by connecting the inductors as they stand in numerical order round the disk. By connecting one of the poles with the ground the other may be used as a prime conductor for charging Leyden jars, &c. It is found advisable, in order to secure more perfect insulation, to varnish the plate and the inductors with shellac varnish.

MECHANICAL WASHING OF COAL.

EDWARDS'S IMPROVED PATENT MACHINERY.

An improved and very efficient coal-washing machine has been invented by Mr. EDMUND EDWARDS, C.E., of the Adelphi, London, and which is coming into very extensive use, with the addition of some important improvements which he has recently patented. Essentially this machine consists of a rectangular screen of wire, or perforated metal, placed in a cistern of water, and upon which the coal is fed from a hopper. The method in which the vibration or blow of the water is given, in order to effect the separation of the coal and dirt (consisting of iron pyrites and shale, &c.) into layers, according to their respective specific gravities, is peculiarly effective, and has only been brought to its present perfection after many years of experiment and practice. The species of motion in the water, which the inventor deems to be necessary to produce the most perfect effect, consists first of a very sudden rise through the perforations of the plate upon which the coal rests. This rise need not be of great extent, but it should be very sudden, so as to throw up the mass of coal and dirt in and with the water. Secondly, the motion of the water should then cease entirely, the effect of this being that the several particles which compose the mass thrown up fall through the still water at speeds proportioned to their weights, so that the heavy dirt falls first upon the screen, then the lighter impurities upon the dirt, and finally the clean coal upon the latter.

If the water, after being thrown up in the way described, were drawn down with equal violence the result desired would be very imperfectly obtained, and only after a long succession of pulsations. This is because the particles would not be allowed to range themselves in the order of their several weights by falling through the still water, but would be drawn violently down, together with the water. Mr. Edwards considers that it is for this reason that attempts to cause the rise and fall of the water, and the consequent separation, by the action of pistons in cylinders is imperfect, and very unsatisfactory in its results. In his machine Mr. Edwards has effected it by closing a part of the water-cistern which a flexible disc of leather, which, so to speak, floats upon the surface of the contained water, and is borne up by it,

This disc is provided with an arrangement to secure its vertical descent, and has also attached to it a block of hard wood, by striking which a blow of exactly the sudden kind required may be given to the water. This blow is given by the strokes of a succession of cams upon a revolving shaft, which is carefully arranged in such a position that the blow may be struck precisely upon the centre of the disc and its attachments, and so that any unnecessary wear and tear may be avoided.

Thus, at each blow, the water is thrown up through the screen, carrying the coal and dirt with it, whilst after the blow, these substances fall through the still water, as required, and the water then sinks slowly through the screen, raising the disc gently for the next stroke. The whole of these operations take place at the rate of about 100 per minute, or, if three cams be arranged upon the shaft, at from 30 to 40 revolutions of the latter. At this speed the effect is perfect; the coal and other substances fed into the hopper ranging themselves rapidly into as many layers as there are different specific gravities in the component mass (assuming the size to be moderately uniform), and this at the rate of about 50 tons a day, of ordinary coal, in one machine of a size not exceeding about 5 feet by 3 feet 6 inches in the screen. From the entire absence of injurious friction, and the slow motion of the shaft, very little power indeed is required to drive this ingenious arrangement, whilst the leather disc, the only part in which there is any wear, will last for many months, and can then be replaced for a few shillings. The advantages of an apparatus which is free from leakage, friction, wear and tear, and packing, are very conspicuous in this machine when at work, and can scarcely be over-rated.

The most important point remaining to be attended to is the rapid removal of the upper layer of pure clean coal as it accumulates, and this Mr. Edwards effects by a series of rakes running on rollers, and driven backwards and forwards by a crank upon the same shaft which carries the striking cams. The height of the shaft relatively to the rakes is adjusted so that in the forward motion of the latter, when they are doing their effective work, the connecting-rod remains nearly horizontal, whilst in the return stroke only, when no work is doing, is its angularity considerable.

The rakes are all hung in bushed bearings, and these bushes are the only parts where perceptible wear and tear exist, and they can easily be replaced. A large door at the bottom of the cistern completes the machine, any number of which can be arranged in line as may be required, and driven from the same source of power, whilst each can be stopped or cleaned instantly, without interfering with the action of the remainder. This appears to be a much more convenient arrangement than any circular form of machine can afford, since it enables a tramway to be laid in front of the line of machines for removing the clean coal, whilst the slack is fed in from one platform above. Last, though not least, the machine is a very cheap one.

Mr. Edwards likewise claims many minor details, which have been added by him to make the machine perfect. It is considered to be in every respect the cheapest, most economical, and most effective yet introduced—an opinion which is well supported by testimonials from many who have used machines on his principle, among others Messrs. Levick and Simpson, of the Blairston Ironworks; Messrs. Darby, of the Brymbo Ironworks; Dr. D. S. Price, the well-known analytical chemist; as well as many others who have applied it, not only for coal, but for lead and other ores, and who speak in the highest terms of it. The inventor is now supplying it, in its newest form, to some of the largest collieries in Yorkshire and elsewhere.

THE PARIS EXHIBITION—No. VIII.

[FROM OUR OWN CORRESPONDENT.]

The portion of the building appropriated to Hesse, Baden, Wurtemberg, and Bavaria is just beyond the Prussian courts, as we enter from the side of the Ecole Militaire by the Rue de Belgique, being situated about midway, and occupying half the space, between the Rue de Prusse and the Rue d'Autriche. The geognostic position of Wurtemberg is particularly interesting, the iron mines and rock salt deposits which occur in the mountains being of especial importance; they are almost exclusively wrought by the Government. There are mines of hematite, brown ironstone, oolitic iron, and iron in nodules, the hematite deposits being of considerable extent in the oolitic formation. The richer deposits of rock salt in Wurtemberg are found in the Muschelkalk formation in many places along the banks of the upper and lower Neckar, and have been laid open in the environs of Hall, partly by borings and partly by mining works; so that it may be anticipated that there is a vast field for enterprise. The principal ironworks are at Wasseraffen, Königsbrunn, and Friedrichsthal. Beside the mines of the Government there also exists a moderate number of private foundries, as well as some works in which the manufacture of sheets and bars is carried on upon an important scale. There are also five wire-manufactories. The chief establishments are at Esslingen, Goeppingen, Ludwigsburg, and Biberach, whence a large export trade is carried on, both to European and other countries. There are scythe manufactories at Friedrichsthal and Neuenburg, the former belonging to the Government, whilst the latter, which is a private establishment, enjoys a European reputation. Copper manufactories are also largely exported, and at Reuthagen there is a wire-gauze manufactory, doing a considerable business. The Government exhibits, which comprise a fine block of pure rock salt from the Friedrichsthal Royal Mines; scythes, sickles, saws, &c., from the Royal Ironworks at Friedrichsthal, near Freudenstadt, in the Black Forest; and some beautifully finished iron and steel cylinders from the Royal Works at Königsbrunn (Wurtemberg) are, of course, excellent, yet they do not surpass, even if they equal, the excellent manufactures of Messrs. HAUERSEN and Son, of Neuenberg and Stuttgart. Messrs. HAUERSEN'S establishment has been in existence more than 60 years, and has steadily increased in importance, until at present it is almost without competitors. The Styrian steel scythes exhibited by this firm are worthy of especial examination.

Mr. NICHOLAS MARTIN, of Tuebingen, has a good collection of flat-irons, and Messrs. WIELAND and Co.'s ironmongery is really excellent. It is rather curious that Wurtemberg does not exhibit a single article in the department devoted to apparatus and processes of mining and metallurgy, although it can scarcely be supposed that there is no one in the country who is interested in that branch of industry; indeed, a glance at Classes 51, 53, and 54 suffices to prove that it is more by accident than anything else that Wurtemberg is unrepresented in mining and metallurgical machinery. Thus Messrs. DECKER and Co., of Canstadt, the well-known machine, boiler, and iron bridge makers, exhibit an improved rest, designed by their principal engineer, and intended to secure greater accuracy and facility in turning. Messrs. C. KIRCHDOERFFER and Sons, of Hall, show some excellent distilling apparatus, and they have also some good fire-pumps; and Messrs. WOLFF and Sons, of Heilbronn, show some excellent chemical apparatus. In addition to this, it appears that in 1861 the 52 machine factories of Wurtemberg employed no less than 3243 workmen. This branch of business has only within a comparatively few years assumed these large proportions, but it is certain that for some time past they have supplied nearly all the machinery required for home use, as well as gradually opening up an export trade. The entire Wurtemberg collection is admirably arranged, and the attendants are particularly careful that no visitor shall fail to appreciate the merits of the exhibits for want of lucid explanation of their uses and objects.

CLEVELAND IRON.—Leaving this portion of the English machinery, and continuing along the grand avenue toward the centre of the building, will be found immediately within the next gallery, and on the right hand, a small but interesting case of specimens, exhibited by STEVENSON, JACQUES, and Co., of the Aclam Ironworks, Mid-dlebro', embracing ironstone and other minerals and pig, and finished iron from the Cleveland district, Yorkshire. Thirty years ago the Cleveland ironstone district was commercially unknown. Although at the present time there is scarcely an iron manufacturer in the world to whom the excellent quality of Cleveland iron is unknown, and scarcely a district to which it is not shipped. The total make of Cleveland pig-iron now exceeds 1,000,000 tons per annum, equal to one-fourth of the whole production of the kingdom, and the facilities here possessed in this trade enable ironmasters not only to compete with other districts in point of cost of production, but to supply large quantities of pig-iron, for manufacture, to the older iron districts of Wales, Staffordshire, and Scotland. During 1866 the shipments were

to France 45,092 tons; Holland and Belgium, 35,525 tons; Germany, 12,796 tons; Denmark, Norway, and Sweden, 6446 tons; Russia, Italy, and other countries, 7654 tons, and even these quantities were, through political and other disturbances, considerably below those for the preceding year. The manufacturers of the district are naturally proud of its history, and certainly the rapidity of its rise could be accounted for by no other fact than the excellence of its manufactures. The town of Middlesbrough is the capital of the district, is built in the valley of the Tees, about nine miles from the sea, and is no less remarkable for its rapid growth and industry than is Cleveland for its natural beauty and mineral wealth. Within 40 years the streets of this modern town have been mapped out of the fields and marshes which surrounded the one house, "Middlebrough," of more ancient history. On the extension from the port of Stockton of the Stockton and Darlington Railway, the first locomotive line opened, connecting the town with the coal fields of South Durham, it became a coal shipping place, and the occupation afforded by this business, together with the rolling-mills erected by Messrs. BOLCKOW and VAUGHAN in 1840, and an earthenware manufactory had, in 1850, attracted from various parts of the country a population of some 7000 inhabitants. At this time the main seam of ironstone in the neighbouring hills was practically discovered, and Messrs. BOLCKOW and VAUGHAN built the first blast-furnaces, and established the town as the centre of the North of England iron manufacture. Since then 125 blast-furnaces have been built for the purpose of smelting this stone, and 14 more are now in course of construction. There are also 27 rolling-mills and a number of extensive foundries in operation in the district, besides iron shipbuilding yards and engineering works of considerable magnitude, and the prophetic municipal motto, "Erimus" (we shall be), has been so far realised, that already the population of the borough of Middlesbrough numbers upwards of 30,000 souls. The Acklam Ironworks, whose exhibits form the more immediate subject of this notice, may be taken as a very fair sample of the best arranged works of the district. They cover some 30 acres of land, and are admirably situated, having the Stockton and Darlington branch of the North-Eastern Railway on the one side, whence the supplies of the raw materials are received, and the River Tees on the other, offering the utmost facilities for shipments. Three of the four intended furnaces are completed and in blast, and being 70 ft. in height and 22½ ft. diameter at the boshes, are the largest of any known to be in blast, although others are projected of still greater dimensions. The earliest furnaces erected here were 45 ft. high by 14 ft. at the boshes, but these are being gradually superseded by others of larger size for economical considerations. The Acklam Furnaces are constructed to utilise the gases which would otherwise pass off into the air. These are conducted down main tubes, and distributed under the boilers and hot-air stoves, and after many experiments are now so successfully applied that by their agency the steam is generated, and the blast heated without the use of any fuel whatever. The blowing power consists of two vertical direct-acting high-pressure engines, with 36-in. steam and 100-in. air-cylinders, and supply 8000 cubic feet of blast per minute at a pressure of 4½ per square inch, with a pair of COULTHARD and SON'S patent engines for reserve power. There are 10 cylindrical steam-boilers, each 70 ft. long by 4½ ft. diameter, and 18 heating stoves—six to each furnace—which the blast leaves for the tuyeres 1000 or 1100° Fahr. The raw materials are raised in 10-ton trucks by vertical steam-lift on the "guantrees," which comprise large hopper coke stores, and kilns for calcining the ore. The minerals are filled into charging barrows again below as required, and conveyed by incline hoist to the top of the furnace. The input of raw material amounts to 5000 tons, and the make of pig-iron from the three furnaces to 1000 tons per week. At these works no admixture of ore is used, but only the mine from the bottom royalty. The upper compartment contains specimens of ores, fuel, and flux, in the proportions of which they are used in the furnace for making foundry pig-iron. The ironstone is from Messrs. MORRISON and Co.'s Mines, at Brotton, near Saltburn-by-the-Sea, and is from the 11½-ft. seam. There is a 3-ft. seam 6 ft. below this, which affords a richer ore, but this is taken as more fairly representing the general character of Cleveland ironstone. The specimen of mountain limestone is from Weardale, in the county of Durham, and is the kind generally preferred to the magnesian limestone found nearer hand. The coke is from South Durham. In selecting coke it is not only desirable that the fuel should be as free from impurities as possible, but that it should be physically strong, in order to sustain the great weight to which it is subjected in large furnaces. In the centre compartment the pig-iron is exhibited in section of pigs, as cast at the furnace, and comprises all the different qualities, classified as recognised in the trade. And in the lower compartments the specimens of castings and wrought-iron are intended to represent the various purposes for which the Cleveland iron is adapted.

THE BODRINGALT COAL.—A case or two beyond that of the Acklam Ironworks are some very fine specimens of South Wales steam coal, one, about 3 feet cube, exhibited by the Bodringalt Coal Company, of which Mr. JOHN MORGAN is the managing partner, being especially worthy of inspection, and certainly equal to any shipped at Cardiff. Although at present less known in the market than the coals of Messrs. DAVID DAVIS and SONS, whose Ferndale estate, in the Rhondda Valley, is contiguous, it appears that the quality of the two coals is as near as may be identical; and as the Bodringalt Company will shortly be in a position to ship 1000 tons of coal per day, it is probable this is not the last the readers of the *Mining Journal* will hear of it. The Abergorki and Bodringalt Pentre veins of coal have long been celebrated as locomotive coals, and are used almost exclusively by some of the principal railway companies in Europe. These coals are free from sulphur, and combine the highest amount of evaporative power, with the smallest consumption of fuel, and the least damage to locomotive engines. Being slightly bituminous the small will coke, and is available for smelters, smiths, and foundries' purposes. The marine steam coals shown are the celebrated Merthyr and Aberdare smokeless steam coals, comprising the Upper Four-Foot, Six-Foot, and Nine-Foot veins, which give the greatest amount of evaporative power, and consume their smoke in the process of combustion, combining the definite proportions of the carbonaceous and bituminous elements required by the Governments of Great Britain, France, Spain, and Italy for the use of their respective steam navies. There are many other specimens of South Wales coal exhibited here, to which reference will be made hereafter.

REPORT FROM SCOTLAND.

JUNE 19.—If there is only a limited business doing in our Pig-Iron Market, prices are firm and rising, with a very fair trade for consumption. There is also a slight speculative tendency in the buyers, but the limited make and the reduction of stocks, and the demand having overtaken the supply, are the legitimate causes of the upward turn of prices. So long as English makers are ready sellers at present rates for delivery in autumn, we can have little hope of prices advancing much further in this market till the English makers are more restricted in their terms for future delivery. The business done this week has been at better prices, however, both for cash and a month, but buyers are reluctantly yielding the increase, and are delaying their purchases in the hope of buying cheaper, which they will not likely do. The exports are on the adverse side this week, being under those of the corresponding week of last year by fully 900 tons, the exact figures being—this year, 12,895 tons; last year, 13,825 tons. To-day prices yielded 1½d. per ton, being done at 53s. 9d. cash; 53s. 10d. a month, closing sellers at these prices: g.m.b., No. 1, 54s. 6d.; No. 3, 53s. 6d.; Gartsherrie, No. 1, 64s.; Coltness, 63s. The makers of Finished Iron are rather better off for orders, on account of the recent reduction in price, but are acquiring these at the expense of the Welsh houses, who are losing the Scotch specifications, which the higher prices have sent them. There is a hope that we are past the worst, both here and in Wales, but it need not be concealed that it is a hope which has so often been deferred that it has made the heart sad. Works are not yet more than partially engaged from week to week, and all classes of workers in metals would hail a revival of demand with joy. Coals are unaltered in price, with large shipments to the South American, Mediterranean, and Baltic ports. From all the Scotch ports the returns give an aggregate for the week just ended of 24,790 tons, against 18,235 tons

same week in last year. The colliers in the Larkhall and Motherwell districts have gone in this week, on a temporary arrangement, at 5s. a day—the price which they struck work to obtain—but they may be out again before the week is over, if they do not succeed in bringing certain coalmasters up to the 5s. a-day standard. Since the decision was given in the case Wilson v. Merry and Cunningham, the colliers about Wishaw have held indignation meetings, and declared against the decision of the Lords of the First Division of the Court of Session, and they have been aided in this by two leaders on the subject in our local daily, the *Herald*. This brought out a rejoinder from the solicitor, Mr. Burns, and another from a viewer, which was followed by a reply from Mr. McDonald, the miners' secretary. Of course, the law of the case is in favour of Messrs. Merry and Cunningham, and local leaders and miners' harrangues are only a beating of the air. The case is to be appealed to the House of Lords, and when the decision is given there, then there will be rest, as agitation is to be kept up till the decision is reversed, if not by the peers, till the existing law has been repealed, and a new law, favouring all manner of delinquents, passed.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

JUNE 20.—Dulness is the characteristic of the Iron Trade, both in North and South Staffordshire, and no definite prospect of immediate improvement appears. The Preliminary Quarterly Meeting of the South Staffordshire Ironmasters' Association will be held on Thursday next, at Birmingham, and may be expected to be rather dull. In North Staffordshire the Earthenware Trade has for some time been much depressed, and this has an injurious influence on the Coal Trade, a very large consumption taking place at the kilns when activity prevails in the pottery trades. For a long time this trade has been good, but at the last annual hirings, at Michelmas, there was a general advance of wages, followed by a rise in prices, and since then the trade has been gradually getting slacker.

Another attempt to discover the thick coal beyond the limits of the ordinary South Staffordshire and East Worcestershire coal field has proved a failure, after a very great expenditure. About 15 years ago Mr. G. H. Bond sunk a trial shaft about 80 yards deep at Wassel Grove, near Hagley Park, and about two miles from the Hagley and Stourbridge station of the West Midland Railway. Borings for some 15 yards deeper revealed the presence of a large quantity of water, which led to the abandonment of the enterprise for the time. One or two thin seams of coal had been passed through, but they were not identified with any of the known seams in the adjacent coal fields. About five years ago Mr. George Elliott bored in another part of the estate, to the depth of 189 yards 2 feet, and at a depth of 175½ yards passed through 37 feet of very thin layers of alternating coal and bat, which was regarded by many as a valueless representative of the thick coal seam. This attempt was likewise abandoned, after an expenditure of a sum of money amounting to about 1500£. Mr. George Pell next took the estate, and began to deepen the shaft sunk by Mr. Bond, and his lease was transferred to Messrs. Crampton and Co., eminent railway contractors, who have expended 12,000£. on a shaft, which has attained the depth of 262½ yards, with no result of commercial value, and it has been determined to abandon any further efforts. If, however, no pecuniary return could be secured for the outlay, the lessees, desirous of affording an opportunity to geologists and persons acquainted with mining of examining their explorations, invited the members of the South Staffordshire Association of Mine Agents to visit it on Monday last, and that body was represented by a number of its members, with the secretary, Mr. H. Johnson, of Dudley. At the depth of 165 yards, a succession of thin layers of coal, with carbonaceous shells and fire-clays alternating, had been pierced, and in these measures a headway was driven for 500 yards across the estate, and in the direction of the productive coal field. At about 400 yards from the shaft, it crosses a fault an upthrow north of 15 feet, and holes upwards and downwards have been driven at different points from the headway, with no different result than that found in the shaft, which, below its level, passes through red and purple micaceous sandstones, which are regarded as the probable representatives of the Old Red Sandstone. Below these a pebble bed, 15 feet thick, has been passed through, nothing similar to which is known in the South Staffordshire coal field. At a depth of 247 yards, beds of greyish micaceous sandstone occur, alternating with impure limestone, and, from the organic fossils found, it is concluded that this is a part of the Upper Ludlow rocks. About a mile and a quarter north-west of Wassel Grove, the Lower Ludlow or Amestry limestone crops out, so that it was clear that the further search for coal was vain. Whilst, however, this glance into the secrets of the mineral kingdom is henceforth to be withheld from human gaze, it is satisfactory to know that Mr. H. Johnson has prepared plans and sections of the trial shaft and headway, and specimens of the whole of the sinking have been presented to the Dudley and Midland Geological Society, with whom the plans and sections will also be deposited.

It has been stated that Mr. Spooner, the stipendiary magistrate of South Staffordshire, convicted the Darlaston Steel and Iron Company of an infraction of the Truck Act. Mr. Ebsworth, solicitor, who appeared for the company, raised an objection, that as the offence under the statute partook of the nature of a criminal act, the punishment for which, on failure of distress, was imprisonment, a corporation could not be liable under its provisions. The point was argued before Mr. Spooner, on Wednesday, at Wolverhampton, his decision having been subject to it. Mr. Motheram, who appeared to prosecute at the Oxford Circuit, contended that the members of a corporation were liable to be distrainted upon in such a case, though not to be imprisoned, and Mr. Spooner coincided in this view, and ordered the immediate payment of the penalty of 10£, and the costs. This district has been singularly free from mining accidents of a serious character for the last few weeks.

REPORT FROM NORTHUMBERLAND AND DURHAM.

JUNE 28.—The general state of trade here continues as lately reported; most of the works are kept well going—that is, the collieries and iron mines, but the large ironworks and factories are not so busy as might be wished, dulness being still complained of at most of the rolling and plate-mills. A slight revival has taken place in the iron shipbuilding trade, but this business is still rather quiet. It is expected that some large vessels for the British Government are to be ordered shortly at Jarrow, and as some good orders are already on hand, these orders, when received, will provide full employment for some time to come in that branch. The Junna, built at Jarrow, has so far given great satisfaction. This noble vessel is now at Deal, where orders are expected for her to sail for Bombay very shortly.

Experiments have been in progress some time in one of the pits at the Hetton Colliery for testing the qualities of the various kinds of Safety-Lamps. Those experiments are very interesting, and are believed to be in some respects more complete and accurate than any that have preceded them. A small gasometer has been fitted up in the coal seam, and gas is conveyed from a blower in the strata into this vessel, and the lamps are exposed to a current of this gas mixed with air, the speed of the current being regulated at will. The current is simply produced by the pressure from the downcast to the up-cast shaft on the ventilating power. It will be seen from this that the lamps are subjected to the natural gas produced from the stratum, which is much more satisfactory than manufactured gas, which has been used in most of the experiments tried hitherto. I believe that all the ordinary lamps in use have failed in bearing this ordeal, the gas, after a certain velocity is reached, being passed through the gauze in a certain time; both these quantities—that is, the speed of the inflammable current and the time the lamp can remain in it without—varying, owing to the peculiar construction of each lamp. The Davy Lamp passes the flame in an inflammable current, the speed of which is 7 ft. per second, and the Stephenson Lamp explodes in a current which moves at the rate of 10 ft. per second; but we cannot at present give the time required to effect this. There is no doubt that a detailed account of these experiments will be given, and they must prove of great interest and importance. One valuable lesson the miner ought to learn from these experiments is this—However safe a lamp may be when exposed to an inflammable mixture at rest (which ought to occur as seldom as possible), this safety cannot be

relied upon when these conditions are changed, and either the lamp or the air is moved with much velocity. The safety then no longer exists. Every care ought, therefore, to be taken of safety-lamps.

The great scheme for clearing the Wallsend, Willington, Howdon, Percy Main, and Burdon Main Pits of water, by immense pumping operations, at Willington is making slow progress. "Edin." in the *Newcastle Daily Chronicle* says—"I at one time thought that the machinery would be ready by midsummer. But at the present rate I fear that 1887 will be nearly if not fully explored before the pumping is fairly commenced with. It is a most important, as well as an interesting experiment. For if these pits were opened, as there are considerable seams in all of them unwrought, they would greatly tend to cheapen coal before the bridge. If Hebburn Pit were re-opened it would make a great deal of difference to the residents of Jarrow, many of whom now buy their coals in sacks from cars which bring them from St. Hilda and Harton Collieries, at South Shields."

REPORT FROM DERBYSHIRE AND YORKSHIRE.

JUNE 20.—There is little alteration in the state of the Iron and Coal Trades of Derbyshire, there being a fair amount of business done in most qualities of manufactured iron, whilst nearly the whole of the furnaces are now in blast. In coal there is rather more doing, but business is anything but brisk, and many of the large collieries continue to be on short time. The dispute in the southern part of the county, at Gresley and Swadlincote, continues, and there appears to be no likelihood of an immediate settlement, although many of the men are evidently tired of living upon a few shillings a week. At present there are about 250 men out, and some 40 more under notice. The former receive 5s. per week from the National Association, which sum is increased from the funds of the local Unions. The masters appear determined not to give way, or employ any person connected with the Miners' Association, and in the present quiet state of the trade they are in a position to do without the men who are out. Meetings continue to be held at Gresley and Swadlincote, and Mr. Brown, and other agitators, urge the men to be steadfast, and not give in; but there is evidently a strong desire amongst many of the men to come to terms, seeing that the amount they receive is inadequate to keep them and their families.

In Sheffield business generally is quiet, and everything appears to give way to the excitement caused by the astounding revelations made before the Trades Commissioners. From the confessions made by persons implicated in rattening, and injury to obnoxious workmen, by attempting personal injury by a species of infernal machine, in the shape of a bottle or tin filled with gunpowder, to which is attached a fuse. One of the leading men in Sheffield, and indeed in the South Yorkshire district, is Mr. Broadhead, who is the ruling spirit of the scissor grinders. This gentleman has been seriously implicated by many of those who have given evidence, as having instigated them to commit outrages, for which there appeared to be a regular tariff paid when the work was done. In connection with the purely trade part of the enquiry, not a little surprise was manifested by the fact coming out that some of the trades actually kept men at fair wages from applying for work at certain places, lest by there appearing to be a plentiful supply of hands wages should run the chance of being reduced. One of the witnesses stated he had seen some one doing any work for some five or six years, and in that time had received about 10s. for walking about. The blowing up of a grinding place, known as Tower Wheel, was another work done by another workman, known as "Fatty" Shaw, in which he not only implicated himself, but another worthy named Tucker Clarke, and also Mr. Broadhead, who gave the former three cans of powder to put into a trough, and also gave him 3£ for inflicting the injury they had to a man named Hewell. On Wednesday, however, the Commissioners, and other persons in view, were taken by surprise by the statement of one of the men, named Hallam, who in making a clean breast of it, under particularly distressing circumstances, having to be well piled with brandy, after fainting two or three times, that with another man, named Crookes, he had not only injured several persons, but that he had compelled the latter to shoot a man named Linley with an air-gun. Crookes, on being called, admitted that he had shot Linley, and that on a previous occasion he had shot and wounded the same person. The charge against Linley was that, being a small master, he had more apprentices than the trade considered right. The two men had a certificate of indemnity allowed, but they both implicated Mr. Broadhead as the instigator of the outrages, and as the person who paid for them, in sums varying from 20£ to 10s.

The Iron Trade of South Yorkshire is just now moderately active, so that at nearly all the works full time is becoming the rule. At Milton there are some good orders in hand for sheets and hoops for Russia and America, and also for plates and bar-iron, and there is more activity at the works than for some time past. The works at Elsecar are once more in operation, but business is by no means brisk, there being nothing doing in rails. Still, as Russia is fast perfecting her system of railways, and, in addition to those in course of completion, is about to make a new one from Orel to Vitepsk, there is every probability that a part of the order for the large quantity of rails required will find its way into this district. There are some large orders being executed for gas and water pipes, but not so much in heavy plates. The steel works continue to be actively employed in the manufacture of rails, axles, tuyeres, &c., and at Penistone, in particular, there appears to be more than enough to keep all hands going for a considerable time, the orders in hand being for Russia and America. The demand for coal, both house and steam, continues quiet. To London there is about an average quantity being forwarded, but the export trade, for the season, is dull. The shipments from Grimsby to the North of Europe are comparatively small, and the same may be said with regard to France, although some steam coal, for the supply of the Admiralty steamers, is being forwarded from the collieries that are on the French list. From Goole a moderate tonnage is finding its way to the Eastern ports, whilst there is rather more doing in slack and small coal to the cotton districts of Lancashire by the Manchester, Sheffield, and Lincolnshire Railway. Coke continues to be taken off as fast as made, the demand being considerably in advance of the means of supply.

As stated by telegram in last week's *Mining Journal*, the engineers determined to open out the shafts of the Oaks Colliery, with a view to the recovery of the bodies. On Wednesday operations commenced by the drawing off the water which was at the top of the puddle, and rubbish in the No. 1 shaft, which was about 15 yards deep. This was done in less than three hours, when Messrs. Jeffcock, Beaumont, and Embleton, jun., went down and examined the shaft, which, so far, was found all right. On Thursday the real work of clearing commenced, by the getting out of the rubbish, which is about 150 yards deep. As only three men can work at one time in the shaft, which is about 7½ ft. in diameter, it will take some time to clear. Should the shaft turn out good to the bottom, and the fan at present at work be sufficient to keep the gas from interfering with the workmen, the shaft will be cleared in rather less than a month. Then will commence the most painful part of the work, the clearing the bottom and bringing out the bodies. For this task there are plenty of volunteers, amongst them being men who have fathers, brothers, and children in the pit, all of whom are highly satisfied at the opening out of the shaft, and will, without the slightest hesitation, descend into the workings and assist in the rescuing of the bodies from the pit, for the purpose of seeing them placed in their final resting place. Already numbers of the widows are finding their way to the colliery, and, as the time of opening advances, it is expected the excitement seen for the few days succeeding the accident will be revived.

On Thursday Lord and Lady Vernon paid a visit to the Poynton and Work Collieries, in Cheshire, being the first since his lordship came into possession of the estates. On the occasion the workmen, numbering about 700, were entertained to a substantial dinner, at which both Lord and Lady Vernon were present. His lordship presided at the head table, next to whom her ladyship sat. Mr. Mattock, the head steward, having proposed the health of Lord and Lady Vernon, his lordship, in speaking to the toast, expressed the pleasure he felt in meeting so many of his workpeople, and trusted that the good feeling which had existed between the workpeople and his family would continue. He also assured them that Lady Vernon, whose heart was wrapped up in the welfare of the workpeople, would make herself better known to them and their families.

The meeting of Charles Cammell and Co. (Limited) is to be held at Sheffield to-morrow, for the purpose of receiving the directors' report, sanctioning a dividend of 5£. 2s. per share, and for general business. After providing for everything, 16,462£. will be carried forward to next account. The whole of the buildings and machinery have been maintained out of revenue, while the usual deduction for depreciation has been made. The directors, taking all things into consideration, consider the results of the year as satisfactory. The expenditure on new works during the year has been—On the Cyclops Works for buildings and machinery, 12,911£. 13s. 2d.; on the Penistone Works on account of the extensions referred to in the last report, 11,075£. 2s. 10d.; and on the Grimesthorpe Works the same, 12,911£. 13s. 2d. On the early part of the year was 84,395£. 19s. 9d.—108,821£. 15s. 9d. The Cyclops and Penistone Works are now completed, and are profitably employed, the anticipations of the board having been realised in regard to the increasing demand for steel and the accessibility of orders which has followed. The Spring Works, at Grimesthorpe, so far as they have been completed, and the type mills there have been in full work during the year. The other portions of the Grimesthorpe extensions have been entirely suspended for several months, and will not be further proceeded with until the necessary capital for the purpose has been provided, although the non-completion of these works is a serious drawback to the profitable working of the whole business, inasmuch as a large amount of capital lies dead for the present. In order to meet the payments for new

ber than during the preceding year (38). In 1865 there were 47 workmen killed and 17 grievously wounded; and in 1866, 24 workmen perished and 17 received incurable wounds. A credit of 2312*l.* intended to provide for the expense of educating the children of working miners, was divided between 37 establishments of primary instruction, as well commercial as religious; and 7107 children attended gratuitously the subsidised schools. This number was 1279 smaller than that for 1865, and after this year every subsidy hitherto granted for educational purposes will be suppressed. There is no improvement still to notice in the Belgian mineral markets. The production has been as restricted in Belgium as in France, and has been for the last months of the year, so much curtailed, and when some transaction of some little importance takes place it is only secured at a sacrifice. It is difficult to know what to say of a market in presence of such a precarious state of things. The *Revue Industrielle*, of Charleroi, publishes a long article on an application made for a concession of a railway line from the Madeleine to Athus. It is considered by some likely that this project will be abandoned, as the Government of the Grand Duchy of Luxembourg has proposed to construct a line to traverse the same, which will suit the Belgians much better than the small tronçon at first projected. The only other project of the Grand Duchy Government proposes to itself—the delivery of minerals to the Belgian forges in exchange for Belgian coal. The La Haye Collieries Company will pay, July 1, first dividend for the exercise of 1866-7, or 1*l.* per share. The Marcinelle and Couillet Ironworks and Collieries Company will pay Aug. 1, a dividend coupon of 1*l.* per share for the exercise 1866-7. The Royal Asturian Mines Company will pay, July 1, a dividend for the exercise 1866, or 1*l.* is. 8*d.* per share. Martincelle and Marcinelle Collieries Company will pay, July 1, a dividend for the exercise 1866; Monceau Fontaine and Martinet Collieries Company, June 27, at Monceau-sur-Sambre; Ougrée Iron Manufacturing Company, June 29, at Brussels; Coucilleux Nord Collieries Company, June 29, at Brussels; and Rhein, Main, and Lahm Mines and Ironworks Company, June 29, at Darmstadt.

There has been little animation in the French copper markets. At Marseilles orders have made default, and the article has tended downwards. At Havre, Chilean has been neglected, and no other affair is mentioned than the sale of 10 tons of disposable, in bars, Urmeneta mark, at 72s. per ton. At Paris the sales made have been small, and prices have been heavy. English has sold at 80s. Chilean, 78s. 6d., and Corocoro mineral, 76s. per ton. On the German market, there is nothing important to report; business has been restricted, and there has been no sensible variation in quotations. An important revival has occurred in the Dutch tin markets. The quotation of 52 $\frac{1}{2}$ fls., to which Banca had fallen, attracted purchasers, and better prices were soon obtained; sales were, in fact, concluded at 52 $\frac{1}{2}$ fls., 52 $\frac{3}{4}$ fls., and 53 fls., and now the article remains quoted at Amsterdam and Rotterdam at 53 $\frac{1}{2}$ fls. Some more extensive affairs have been concluded in Billiton tin; 13000 blocks have realised 51 fls. At Marseilles tin has regained a little firmness, without, however, important transactions being reported; Banca and English are quoted at 92s. per ton. The Paris market has been quiet, and prices have been a little firmer; Banca has sold at 90s. 6d., and Corocoro, at 88s. 6d. In London, a general stimulation had appeared in the German markets, but this unfavourable state of affairs has disappeared on the receipt of news from London and Amsterdam, indicating a notable improvement in affairs, and the article has closed tolerably firm at previous quotations. The demand for lead continues moderate. At Marseilles the article has been tending downwards; first fusion lead has made 18l. 10s., and rolled and in pipes 21l. per ton; it would be possible, however, to treat below these rates for affairs of some importance. At Paris, rough French lead remains quiet, at 20l. 2s., while Spanish and English have made 20l. 4s. per ton. At Rotterdam, Stolberg and Eschweiler continue to be quoted at 11 $\frac{1}{2}$ fls. On the Hamburg market, the demand as well for exportation as for interior consumption is nearly nil; some arrivals of Spanish are reported from the Rhine, and the market is a trifle better. The Russian market remains quiet, but firm, for zinc; comparatively little has been offered for sale, Zinc has been regaining favour at Hamburg, and in consequence of some purchases, comprising about 17,000 centners, holders have raised their pretensions. The Paris market shows little animation; quotations are 22l. 8s. for rough Silesian, and 22l. for zinc from other sources.

SULPHUR ORE MINES (IRON PYRITES) NEAR MEGGEN.
[FROM WESTPHALIA.]

Whoever has had the opportunity of subjecting to a close inspection and careful examination the English prospectus of the SIEGENA SULPHUR MINING COMPANY, formed for the purposes of the purchase and working of sulphur mines (iron pyrites) near Meggen, in the mount district of Arnberg (Westphalia, Prussia), belonging to that company, a prospectus destined only for private circulation, he cannot doubt but that the fundamental statement laid down in the prospectus, to the effect that the annual clear profit of the company is founded upon such a statement as to the clear profits to be gained, are erroneous; and that, therefore, those who, on the basis of the prospectus, intend acquiring the mines in question, have all and every cause to stand upon their guard in doing so.

Mine Ernestus at	£18,750
Mine Ermecke at	11,232

.....\$29,982

has been estimated far too high; and that, according to the assurance of one of the sharers, it is an entirely unfair allegation to say that, during the last four months previous to the drawing up of the prospectus the average profit of the Siegena has amounted to about 750*l.* per month; it has, on the other hand, by the judgments of competent technical men, who have examined the mine, been ascertained, that the Siegena Mines can, according to the richness of the deposit, and their general condition, afford the said clear profit at no time, and that they represent, at the best, a real value of only 15,000*l.* Add to this that the Siegena have thought proper to admit in their estimation of the clear profits derivable from the mines a sum which has no right whatever to figure there, as will be seen from the particulars following:—

In the 29,982*l.* before mentioned are included, as annual clear profits, a sum of 10,000*l.* for the Siegena, 10,000*l.* for the Kellers, and 9,982*l.* for the Philippine, two neighbouring mines belonging to the Siella Mining Company, for the privilege of unwatering both of them. This privilege, it is true, is in the possession of the mines Ernestus and Ermecke, but is, *de facto*, not of any value whatever to the Siegena.

The right of the unwatering deep work, Ernestus II. (Ernestus Tiefbau Ernestoll II.), has already been abolished by order of the Royal Chief Office for Mining, which sentence has been raised by the Ministry, and as for the unwatering of the mine Ernestus I. (Ernestus Tiefbau Ernestoll I.), there have, from motives of safety, by order of the Royal Chief Office for Mining, some conditions been imposed upon its management, which if observed and complied with will prove so expensive as to be sure to absorb the profits expected. At all events, the mine Keller is in the position, in the same time as the unwatering deep work Ernestus I. will have completed the works necessary for the purpose according to the prescriptions alluded to to work it on the surface, as much as the mine Philippine, the manner of using this unwatering privilege has been, up to the present day, so diametrically contrary to all prescriptions that the dues derivable according to it—the adit cut (Stollhie), and the adit ninth (Stollneunte)—could not at all be claimed, as this has lately been pronounced by the Royal Chief Office for Mining. On the basis of this sentence the Siella Mining Company have entered a lawsuit against the Siegena Mining Company for rescission of the privilege of unwatering, which they have not been able to establish, as the allegations rest on official documents; they cannot possibly be called in question.

As to the mine Ermecke, which has the right of unwatering Philippine, the other mine belonging to the Siella Mining Company, it will surely never succeed. The right of unwatering all the other adjacent mines (Generalrauberstoll) which the Siella Mining Company have got, is being used in such a way that, as the works necessary for the purpose will soon be completed, it is probable that the mine Ermecke will be able to work on the surface. Hence it will be seen that the privilege which in the prospectus has been stated as a very important source of profit to the Siegena—the privilege of unwatering both Keller and Philippine, two neighbouring mines belonging to the Siella Mining Company—is hardly anything else but an illusion. Now, supposing the annual clear profits to be derived from the mines Keller and Philippine, according to the said privilege of unwatering both of them, really to amount to 6600*l.* per annum, as in the prospectus, at least, has been assumed, and the annual clear profit of the mine Siegena, at least, the annual clear profit calculated at 29,982*l.* per annum, since the privilege according to which alone it can be claimed at all has been proved to be illusory. There are a great many other allegations contained in the prospectus which, too, we might very easily refute as being incorrect or questionable, but it would not be worth while to do so.

by public auction, on Thursday, the following mines shares:—1 Carn Bea, at 137. 1 dity, 12t. 10s.; 25 East Rosewarne, ss. 9d., 75 ditto, 6s. 6d., 25 ditto, 6s.; 45 East Providence, 6s.; 85 East Russell, 2t. 5s., 10 ditto, 2t. 4s., 25 ditto, 2t. 6s.; 100 East Moor, 6t. 4s., 35 ditto, 5s., 55 ditto, 5s.; 100 East Waverley, 3s.; 100 Richmond, 3s.; 35 Prince of Wales, 4s. 15s. 3d. 5s.; 25 Anglo-Brazilian, 25s., 75 ditto, 1t. 2s. 6d., 20 Wheel Agar, 39s.; 3 North Rosear, 4t. 10s., 7 ditto, 4t. 15s.; 5 West Great Work, 2t. 5s.; 10 Chilverton, 6t. 12s. 6d.; 2 Clifford Amalgamated, 7t. 12s. 6d., 3 ditto, 7t. 15s.; 3 East Basset, 16t.; 10 Prosper United, 2t. 15s.; 80 Rossa Grande, 10s. 6d., 50 ditto, 10s. 9d., 50 ditto, 11s.; 5 Great Wheal Vow, 18t. 15s.; 5 East Carn Bea, 2t. 10s.; 20 Rosewarne United, 10s.; 50 ditto, 4t. 15s. 6d.; 100 East Carn Bea, 10s. 6d.

There were also 100 shares of the West Wheal Kitt's shares were not sold, the committee having placed a reserve upon them considerably in advance of the market price. The sale was well attended, and several of the lots were most spiritedly bid for.

We cannot too strongly again urge on mine adventurers and managers the importance of furnishing more details as to the receipts and expenditure of the concerns under their control than has hitherto been the case, and especially that true balance-sheets should be issued at every meeting of adventurers, containing their exact position as to their assets and liabilities. As Sir W. Hutt recently stated in the House of Commons, there has been too strong a disposition on the part of managers of companies to "make things pleasant," in order to keep up the prices of shares in the market. To such an extent has this been done that in many instances there has been a total disregard of all moral and legal obligations. Balance-sheets have in numerous instances been drawn up as oftentimes to grossly mislead the shareholders and the public, instead of affording them accurate information as to the state of their affairs. The result has been that many parties have been utterly ruined, and a great many others have thrown up their shares in disgust, causing really *bona fide* and legitimate concerns to be abandoned just at a time when there was a strong probability of their paying out cost.—West Briton.

How many life-long maladies spring from neglecting trifling symptoms? The pimple, readily curable in the nursery, becomes, through carelessness, the irreparable source of future trouble. The cure of the curative powers of Holloway's ointment and pills, those who fail to use them for extirpating the first seeds of hereditary ailments will have to bear the punishment resulting from their folly. Holloway's remedies will remove eruptions from the skin, scrofulic diseases, and scrofula, and heal every description of ulcer, sore, wound, or abrasion. They will cure all kinds of rheumatism, especially, and all forms of neuralgia, and immense expense will be saved, and a great benefit be conferred on the present and succeeding generations.

The following circular, signed on behalf of the directors by Mr. Daniel Cosham and Mr. J. W. Sully for the committee, has just been issued to the shareholders in accordance with the above resolution.

"We enclose a copy of the resolution of the joint committee of directors and shareholders, appointed at the meeting of the 8th inst.; and, in accordance with the fifth resolution, we send you two printed forms, one of which you are particularly requested to sign and return to the secretary of the company, in the enclosed envelope, before Friday, the 21st inst., the object being to enable the committee on that day to ascertain definitely how many of the shareholders would desire to remain in connection with the company, and how many would desire to retire upon the terms proposed. We also desire that you should elect a committee of shareholders to whom you would desire to transfer your shares, to continue your shares in the company, as, should a large number wish to retire the proposed arrangements could not be carried out, and in that case the company would be wound-up under the powers of the Court of Chancery, the whole of the remaining £l. per share called up, the valuable buildings, machinery, and stock in trade sold at a fearful sacrifice by a compulsory sale, and a large portion, if not the whole, of the calls absorbed by these losses in the liquidation. If, on the other hand, a sufficient number of shareholders should remain to form a prospect of their being pumped at least a part of the money they have already paid, they will possess property for the calls they have to pay at the intervals stated for carrying out the business of the company. At a meeting of the directors and committee of the shareholders (appointed at the special meeting on the 8th inst.), to consider the best mode to be pursued with reference to the position of this company, the committee and directors were unanimously of opinion—1. That there ought not to be a compulsory winding-up of the company under the powers of the Court of Chancery.—2. That by a properly devised and seconded system of management there is the nucleus of a good and profitable business.—3. That the existing shares (made payable at intervals of not less than six months, and not more than £l. per share) would enable the directors to meet the present engagements and carry on the business of the company.—4. That the name or name of the company should be altered, and the direction remodelled.—5. The printed forms should be sent to the shareholders for them to sign, either to continue to remain in the company, subject to the further call of £l. per share, or to retire with the loss of £l. per share already paid-up, on being relieved from further liability thereon."

Last week reference was made to important changes about to take place in the proprietorship of the Tredegar Ironworks. It will be remembered that about 12 months ago Mr. Homfray obtained an injunction in the Court of Chancery against his co-partners, Messrs. Forman and Fothergill, to prevent them selling their shares without previously offering the same to him. Such a proceeding led many to believe that Mr. Homfray intended purchasing their shares, but this he has not done. Negotiations have of late been going on, and an arrangement has been come to, by which the Messrs. Homfray are to retire from the works, Mr. Forman having purchased their shares at, it is said, 16,000*l.* per share for their eight shares. The change will place the works in precisely the same hands as the Sirhowy Railway; but whether Messrs. Forman and Fothergill intend carrying on the works themselves, or whether they intend to dispose of the property, has not yet transpired.

On Monday an explosion occurred at the Mountain Pit of the Beaufort Colliery, Aberdare, by which one man lost his life and four others were badly burnt. The cause of the explosion is most singular. In the opinion of the men it is known to be full of gas, and on the morning of the explosion the men were warned not to go into that part of the works. It appears that rats are in the pit, and it is the pursuit of a workman run before the prescribed limits with a naked light, and the explosion was the result. The late explosion in the Beaufort Colliery, near Penclawdd, two men and a boy were killed, and a large number, as many at first were led to believe. The arrivals at Swansea.

Others, with 600 tons of copper ore and silver ore, for Mr. Bath and Son; the team, from Bilboa, with 220 tons of iron ore, for W. H. Tucker; the Adonis, from Lealata, with 240 tons of sulphur to order; the Gitanilla, from Cuba, with 4 tons of copper ore, for the Cobre Co.; the J. W. Dodd, from Bilboa, with 250 tons of iron ore, for W. H. Tucker; the Minnie, from Bilboa, with 91 tons of iron ore, for the Dewline Iron Company; the Gleaner, from Bilboa, with 168 tons of iron ore, for W. H. Tucker; the Victoria, from Rouen, with 100 tons of plaster Paris, for Mr. P. Ruyter.

FOREST OF DEAN.—The Whitsuntide holidays have come and gone, as, stated last week, never, within the recollection of the oldest Forester, has there been a more general disposition to carry out the old saying, "All work and no play makes Jack a dull boy." The order of things having now changed, the miner has returned to his mines, the collier to his well, and the foreman to his iron. The artisan, too, has gone to his bricks and timber, and the labourer to busy pursuing his labour. It is to be hoped that all are better for the short but very pleasant relaxation.

The iron trade of the Forest maintains its wonted state of activity, and disposition is lacking on neither side to sell or purchase—whilst this branch of business remains very favourably placed for orders. At present there is no advancement in the "figure" for this commodity. The forthcoming quarterly meeting is certainly looked forward to with no common interest by makers, as such matters will be slightly varied in their favour—at least, it is so expected.

TAQUARIL GOLD MINING COMPANY (LIMITED),
IN THE PROVINCE OF MINAS GERAES, BRAZIL.
Capital, £100,000, in shares of £1 each.
2s. 6d. per share on application, 2s. 6d. per share on allotment.
No call to be made at a less interval than three months,
or to exceed 2s. 6d. per share.

CHAIRMAN.
H. BIRT, Esq., formerly of the St. John del Rey Mining Company.

BANKERS.
The Consolidated Bank (Limited), 52, Threadneedle-street, London, E.C.

BROKERS.
Messrs. Walker and Lumsden, 25, Abchurch-lane, London, E.C.
Messrs. G. and T. Irvine, India Buildings, Liverpool.

SECRETARY—Edward J. Cole, Esq.

OFFICES,—2, NEW BROAD STREET, LONDON, E.C.

This company has been formed for the purpose of purchasing the Taquaril estate, including the mines thereon, upon the following terms, viz.—£14,000 in cash, and £12,000 in shares.

The estate of Taquaril is freehold, and adjoins the Morro Velho estate, now worked by the St. John del Rey Company, and is about four miles from that mine. Upon a capital of £14,500 that company has paid in dividends no less than £800,250, and the market value of the mine is now upwards of £600,000. The total value of the gold raised exceeds £3,000,000. The net profit for the past half-year was more than £50,000.

The Taquaril Mine is in the Jacutinga formation, similar to that of the celebrated Gongo Soco, and the present successful Don Pedro North del Rey Mines. The Gongo Soco Mine produced £1,432,170 worth of gold, and yielded very large profits. The Don Pedro North del Rey Mine made a profit of £6133 in the month of March last, and the market value of the mine is now about £250,000, with £53,313 paid-up capital.

Reports upon the Taquaril Mine have been furnished by the following mining agents and others, and accompany this prospectus, viz. :—
Mr. JOEL HITCHINS, late Chief Commissioner of the Imperial Brazilian Gold Mining Association, says: "Gold was frequently seen in the stones, and large pieces of foliated gold, some presenting a surface of several inches, have been taken out." "Taquaril is known to possess two rich lodes, running parallel and within 5 ft. of each other; on one, the old lode, a single shaft only has been sunk, on a shoot of gold, and it is notorious that it has produced a good deal of riches. East and west of the shaft is all virgin ground." "A stream of water rises in the valley, about 350 fms. east of the mine, which should be available to work pumping machinery."

Capt. HENRY PENGILLY, 13 years at St. John del Rey, 12 years at the Imperial Brazilian, and 2 years at Taquaril.

Capt. WILLIAM WILLIAMS, late manager of the Brazilian Gold Mining Company, in his report, estimates that the sum of £10,000 would be found ample to set the mine in good working order, and to make handsome returns.

Mr. WILLIAM LANYON, the last miner who worked in the Taquaril Mine, states in his report, "I have taken out about 100 lbs. weight of gold in so small a space as from 10 to 12 ft. of this lode." 100 lbs. weight of gold is worth £4000.

Capt. THOMAS MARTIN, 30 years in Brazil, says, "I can testify to many times seeing at the owner's house at Sabara large rich stones and enormous lumps of pure gold they were then extracting."

Capt. WILLIAM GOYEN, 16 years at St. John del Rey Gold Mine, says, "I have read the reports and remarks on the Taquaril Mine from Capt. HITCHINS, LANYON, PENGILLY, WILLIAMS, and Martin, and have much pleasure in corroborating their statements relative to its richness."

Capt. R. S. BRYANT, many years in Brazil, states:—"Parl, Sept. 14, 1864: I have carefully perused the reports forwarded by you from Capt. Joel Hitchins, William Lanyon, Henry Pengilly, William Williams, Thomas Martin, and Wm. Goyen on Taquaril Mine. They go fully into the different points, and all agree on the principal one, that the mine is exceedingly rich."—"Parl, March 23, 1865: I visited Taquaril to ascertain if a sufficient quantity of water could be brought to work the necessary machinery. There are two principal streams or sources from which it (the water-course) was formerly supplied, besides which there are three other small streams falling into it. To the main sources I paid particular attention; at present, nearly at the end of the rainy season, there is an abundant supply from each stream, either of which is more than would ever be required at Taquaril. The reports obtained of the richness of the mine from parties in the neighbourhood were very flattering."

WALTER FURST, Esq., 24 years in Brazil, late from the St. John del Rey Mines. From these reports it will be seen that the Taquaril Mine continued to yield considerable quantities of gold, until the rude mechanical appliances in use for draining the water proved inadequate to its further prosecution.

No money will be paid to the vendors of Taquaril until the legal advisers of the company in Brazil have certified that the estate has been duly conveyed.

The directors will take power, in the Articles of Association, to purchase any other eligible mining property in Brazil.

In order to satisfy themselves further as to the prospects of the Taquaril Mine, some of the directors have seen and examined Capt. Pengilly and Mr. Lanyon, who worked there, and also Capt. Goyen and Williams, and Mr. Furst. In these personal interviews they in every respect confirmed their written reports.

The Articles of Association may be seen at the offices of the company, together with the original reports and other documents.

The directors will not commence operations until 60,000 shares (including the vendor's shares) are applied for and allotted.

The following is a copy of the Memorandum of Association:—
1. The name of the company is the Taquaril Gold Mining Company (Limited).
2. The registered office of the company will be situated in England.
3. The objects for which the company is established are—For purchasing certain lands, or interests in lands, in Brazil for the purpose of mining operations. For mining for gold and other minerals, and carrying on processes for preparing and rendering ore fit for the market.
4. The liability of the members is limited.
5. The capital of the company is £100,000, divided into 100,000 shares of £1 each.

Applications for shares can be made, and prospectuses, reports, and all information obtained, at the company's offices (where plans may be seen); of the brokers, &c.

ABRIDGED PROSPECTUS.

THE GREAT CWMYSYLOG SILVER-LEAD MINING COMPANY (LIMITED).

Incorporated under the Companies Act, 1862, limiting the liability of each shareholder to the respective amount subscribed.
Capital, £20,000, divided into 10,000 shares of £2 each.
Issue of unallotted shares fully paid-up.
No further liability existing.

DIRECTORS.
JOHN BRODRICK HARTWELL, Esq., Gloucester-crescent, Hyde Park, W.
JOHN EDWARD PANTER, Esq., (Barrister), Lee Park, Kent.
THOMAS SPARGO, Esq., M.E., Gresham-house, London.

BANKERS.
London and South Western Bank, 27, Regent-street, W.
CONSULTING ENGINEER.
Josiah Hugo Hitchins, consulting engineer to Devon Great Consols.

OFFICES,—224 and 225, GRESHAM HOUSE, OLD BROAD STREET, E.C.

PROSPECTUS.

The Great Cwmysylog Silver-Lead Mines stand in the lower Plynlimmon range of mountains, six miles eastward of Aberystwyth, in Cardiganshire. The underground works extend nearly a mile on the line of the lodes. The mines have been furnished with a great deal of machinery, and returns of ore have already been made with regularity, and sometimes with profit on the working. The object the company has in view in issuing this prospectus is to comply with the suggestions of the renowned mining engineers—the Messrs. Hitchins—who have reported on the works.

By the sides of the workings, on the middle lode on the south, stands the Great Cwmysylog lode, in virgin ground, through the sett. It is believed by everybody acquainted with mining in the silver district of Cardiganshire, that when this lode is opened up in the Great Cwmysylog Mine, by means of cross cuts, that it will make an immensely valuable property. East Darren, upon this lode, is now making about £7000 a-year profit.

Every mining agent who has inspected the mine considers it to be one of the surest, largest, and best silver-lead mines in Cardiganshire. The lodes are formed in the great clay-slate formation, resting on the granite and trap-rocks, and the deeper they have been wrought in these measures the more productive and profitable have they proved. Extracts from the opinions of the Messrs. Hitchins and others are appended to the prospectus, with full reports from the agents.

The mine is held at 1-14th royalty, under a lease for 21 years, of which only three are expired.

A section of ore ground has been sunk on the north lode, at the eastern part of the mine, from the 15 to the 25, which it is calculated will yield £6000 to £7000 worth of good silver-lead ore, and leave one-fourth to one-third profit. In depth this ore ground is of sufficient body to establish a rich mine of itself, and, taken with the other great runs of ore, no doubt can be entertained that the Great Cwmysylog will be one of the most productive of the silver-lead works of North Cardiganshire.

It is confidently expected by the most competent authorities that the realised profit upon an outlay of £3000 of the capital the promoters have provided for, will enable the company to pay a liberal dividend to its shareholders, whilst the opening the lodes at various points, by cross-cut adits, will guarantee the certainty of realising immense riches.

Upwards of 7500 shares have already been taken, and the remainder will be issued in accordance with date of application.

Detailed prospectuses, together with reports and forms of application for shares, may be obtained at the bankers or the offices of the company. Copy of the Articles, as registered, may be seen at the offices of the company.

SANDYS, VIVIAN, AND CO.,

COPPER HOUSE FOUNDRY, HAYLE, CORNWALL,

ENGINEERS, IRON AND BRASS FOUNDERS,

MANUFACTURERS OF PUMPING ENGINES FOR WATER-WORKS, MINING

MACHINERY, MATERIALS, AND TOOLS of every description.

Foreign mines supplied on the best terms, and at the shortest notice. Second-hand Mining Machinery and Pitwork in Stock; also a new 4 and a 3-horse power high-pressure vertical engines, with boilers, and a second-hand 10-horse power engine, condensing.

NOTICE.—CAPT. S. M. RIDGE, of LLANIDLOES,
MONTGOMERYSHIRE (late manager of the Brynastig and Cwm Fron Mines, and others, in Shropshire and Wales), is NOW OPEN to INSPECT and faithfully REPORT UPON ANY LEAD MINE in either of these localities that may be confided to his care, having had better than 20 years' experience in lead mining, as miner and agent.—Address, Capt. S. M. RIDGE, Llanidloes, Montgomeryshire.

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Cornwall.

IN THE MATTER OF THE COMPANIES ACT, 1862, and of the WEST ROSEWARNE MINING COMPANY.—ALL CREDITORS or CLAIMANTS of the ABOVE-NAMED COMPANY who have not received notice from the Registrar of the said Court that their claims have been already admitted, are hereby REQUIRED to COME IN and PROVE THEIR SEVERAL DEBTS or CLAIMS at the Registrar's Office, Truro, on Tuesday, the 23 day of July next, at Eleven o'clock in the forenoon, or in default thereof they will be excluded from the benefit of any distribution made before such proof, and for the purpose of such proof they are either to attend in person or by their solicitors or competent agents, or (unless such attendance be required by the Registrar's summons) they are to send affidavits of their several debts or claims to the Registrar of the Court, at Truro, such affidavits being sworn either before some Commissioner of the said Court, or before any Court, Judge, Justice, or any Commissioner of one of the Superior Courts lawfully authorised to take and receive affidavits and affirmations.

WM. MICHELL, Registrar of the above-named Court, Truro, Cornwall.
Dated Truro, June 18th, 1867.

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Cornwall.

IN THE MATTER OF THE COMPANIES ACT, 1862, and of the NORTH FRANCES MINING COMPANY.—By the direction of His Honour the Vice-Warden, notice is hereby given, that on Saturday, the 6th day of July next, at the Registrar's Office, at Truro, in the county of Cornwall, at Eleven o'clock in the forenoon, this Court will PROCEED to MAKE a CALL of FIVE SHILLINGS AND SIXPENCE PER SHARE on all the contributors of the said company settled on the list of contributors under class A. All persons interested therein are entitled to attend at the time and place aforesaid to offer objections to such call.

WM. MICHELL, Registrar of the said Court.
Dated Truro, this 20th day of June, 1867.

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Cornwall.

IN THE MATTER OF THE COMPANIES ACT, 1862, and of the CARADON UNITED MINING COMPANY.—By an Order, made by His Honour the Vice-Warden of the Stannaries in the above matter, dated the 17th day of June instant, on the petition of James Thomas, of Charlestown, within the said Stannaries, a creditor, and also a shareholder of the said company, it was ORDERED that the said CARADON UNITED MINING COMPANY should be WOUND-UP by this Court, under the provisions of the Companies Act, 1862.

HODGE, HOCKIN, AND MARRACK, Solicitors, Truro.
Dated Truro, June 18, 1867.

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Cornwall.

IN THE MATTER OF THE COMPANIES ACT, 1862, and of the GARLIDNA UNITED MINING COMPANY.—TO BE SOLD, under the direction of the Registrar of the said Court, BY PUBLIC AUCTION, on Tuesday, the 9th day of July next, at Eleven o'clock in the forenoon, at GARLIDNA UNITED MINES, in the parish of Wendron, within the said Stannaries, in lots, the MINE SETTS or GRANTS of the said company, and the undermentioned MINING MACHINERY AND MATERIALS, viz. :—

ONE 15 in. cylinder PUMPING ENGINE, 7 ft. stroke, with feed and steam-pipes, and flange of iron rod, 1 cast-iron balance bob, 1 24 in. cylinder stamping and drawing ENGINE, with fly-wheel and cage complete, brass bell, shears, with stays, pulleys and brasses complete, capstan complete, 1 10 ft. 19 in. plunger pole, with stuffing box and glands, launders of different sizes, oak axle for water-wheel, with iron sockets, pulleys, 4 whelm kibbles, buckets and prongs, iron and timber tram wagons, 1 shaft horse, wheelbarrows, 2 hand-ditto, 4 knives for dressing tin, beam and scales, stands and weights 3½ cwt., stamps tie and floor boulders, 1 single power crab winch, miners' chests, wood stairs, ladders, smiths' and miners' tools, a quantity of new and old iron and timber, together with the account house and office furniture, and a variety of other articles and effects in general use in mines.

The machinery, materials, and effects may be inspected at any time prior to the sale, on application to SAMUEL VERCOCK, in charge thereof.
HODGE, HOCKIN, AND MARRACK, Solicitors, Truro.
Dated Registrar's Office, Truro, June 19, 1867.

In the Court of the Vice-Warden of the Stannaries.
Stannaries of Cornwall.

IN THE MATTER OF THE COMPANIES ACT, 1862, and of the WHEAL CURTIS MINING COMPANY.—TO BE SOLD, under the direction of the Registrar of the said Court, BY PUBLIC AUCTION, on Tuesday, the 2nd day of July next, at Eleven o'clock in the forenoon, at the WHEAL CURTIS MINE, in the parish of Crowan, within the said Stannaries, the undermentioned MINING MACHINERY AND MATERIALS, viz. :—
ONE 25 in. WINDING ENGINE, with steam capstan, and BOILER, 7 tons.
Angle bob, about 200 fms. connection and flat rods, strapping and rod plates, about 6 tons of ½ fire whelm and other chain, yokes, tram wagons, single, double and treble blocks, dry tubs, chain buckets and prongs, flange bolts, clacks, wood house, new and old brass and steel, a quantity of cartridges, kibbles, a large new beam for scales, 1½ barrel of tar, safety fuse, wood air pipes, miners' chests and tools, wood sheds, bucket mills, wood stable and gig house, new and old timber; carpenters' shop and tools, smiths' shop and tools, account house and office furniture, and a variety of other articles and effects in general use in mines.

The mine machinery may be inspected on application to Mr. OLIVER, the bailiff in charge thereof.
HODGE, HOCKIN, AND MARRACK, Solicitors, Truro.
Dated Registrar's Office, Truro, 19th June, 1867.

GLAMORGANSHIRE.—VALUABLE COLLIERY.

MR. ROBERT EVANS is instructed by the Mortgagees to SELL, BY AUCTION, at the Angel Hotel, Cardiff, on Wednesday, the 26th day of June inst., in One Lot, unless previously disposed of by private contract, the VALUABLE COLLIERY, known as

THE VENABLET STEAM COAL COLLIERY,
in full working order, situated at GLYN NEATH, comprising VALUABLE SEAMS of STEAM COAL, IRON ORE, and BLACKBAND. Among the seams in the upper series is included the famous "Resolven Vein" of steam coal, on the Admiralty List, and extensively worked on the adjoining property. The mineral taking comprises about 430 acres.

All the necessary works, appliances, and buildings have been erected, and very commodious broad and narrow-gauge railway sidings, tipping stages, and roads formed, and about twenty cottages are held at moderate rents.

Railway communication from the colliery to Swansea and the other ports, and to Liverpool and the North, is complete.

The two upper veins have been thoroughly opened by level and slant. At the present time from 100 to 150 tons of coal a day can be raised, which, within six weeks, could be increased to 200 tons. The coal from the Upper Vein has been in use on the Great Western Railway, and is an excellent locomotive engine coal.

Particulars and conditions of sale, with plan, may be obtained of Messrs. TUCKER and NEW, Solicitors, 4, King-street, Cheap-side, London; and of Mr. ROBERT EVANS, Land Agent and Auctioneer, Bridgend. May be viewed by giving one day's previous notice to Mr. WILLIAM EVANS, Agent, Venablet Colliery, Glyn Neath.

COUNTY OF CARMARTHEN.

SALE OF IMPORTANT FREEHOLD MINERAL FARMS.
MR. WILLIAM HARRY REES (successor to the late Mr. Thomas Thomas), begs to announce that he has been favoured with instructions to SELL, BY AUCTION, at the Bush Hotel, Swansea, on Saturday, the 8th day of July, 1867, at Three for Four o'clock in the afternoon, subject to conditions of sale to be then produced, the following

VALUABLE MINERAL ESTATES,
situate within a comparatively short distance of the shipping-port of Llanelly. LOT 1 comprises TWO FREEHOLD FARMS of GELLYRY ODYN UCHA and GELLYRY ODYN ISHA, in the parish of Llanon, containing together 145 acres, or thereabouts, of pasture and arable land, held by Mr. David Roberts, now aged 76, under a lease for his life, at the very low annual reserved rent of £60. The dwelling-house and farm-buildings are of the most capacious and substantial character, and are altogether covered with slate. That this property contains the valuable veins of this important anthracite district there can be no doubt, as a fine Three-Foot vein of clean coal, as well as valuable blackband iron ore, have been proved in two places at the southern boundary of the estate, while at a distance of a mile and a-half north-east of the property the celebrated Nine-Foot vein has for years been worked with great success.

A branch line from the Llanelly Railway is intended, passing through this property has been surveyed, and the works will, in all probability, be constructed within a short period.

The turnpike-road from Carmarthen to Llanelly and Swansea passes through this estate.

LOT 2 comprises the FREEHOLD FARM of GILVACH, situate in the parish of Llanelly, containing 128 acres, or thereabouts, of arable and pasture land, all within a ring fence, held by Mr. William Hughes, for an unexpired term of five years, at the very low annual reserved rent of £50.

The dwelling-house and farm-buildings of this farm also are of the most superior character, being entirely roofed with slate.

From the indications referred to in Lot 1 it is confidently believed that the same coal measures also underlie this property.

Printed particulars, with plans, may be obtained on application to Messrs. H. U. and N. COLCUTHURST, solicitors, New Inn, London; JOSHUA RICHMOND, Esq., C.E., Neath; or at the offices of the auctioneer, Charlesville-place, Neath.

TO BE SOLD, BY PRIVATE CONTRACT, all that valuable TIN MINE, called WHEAL VLOW, in the parish of PERRANZABULOE, CORNWALL, together with all the MATERIALS thereon. The materials are nearly new, and consist of a 24 in. rotary PUMPING ENGINE, 70 fms. of 8 in. pitwork, 7 and 8 in. rods, stamps of 16 heads, account-house, carpenters' and smiths' shops, dressing-floors, with requisite machinery for dressing 12 tons of tin per month.

Wheal Vlow is situated in a well-known tin district, adjoining the Old Budnick Mine. The sett is very extensive, traversed by numerous lodes, and large returns have been made, and in the immediate neighbourhood of some of the first tin and silver-lead strata in the county, and is well worthy the notice of mine adventurers.

All particulars may be known on application to Mr. RICHARD COWLING, Resident Magistrate, Cornwall, by whom offers will be received.

Dated June 19, 1867.

SITHNEY WHEAL METAL, NEAR HILSTON.

FOR SALE, BY PUBLIC AUCTION, in One Lot, on the
on Wednesday, June 26th, 1867, at Two o'clock P.M., ONE 30 in. cylinder ENGINE, double; TWO BOILERS, 10 tons each; 16-head stamps, 4 balance angle bobs, 170 fms. 6, 7, and 8 in. pumps, 4 plunger poles and bottoms, 100 fms. 9 16-in. wood rods, plates and bolts, 80 fms. bucket and hanging rods, 100 fms. 9 16-in. chain, poppet head, shaft tackle and pulleys, 100 fms. tramroad iron horse whelm, sheds, dressing tools, scales and beam, smiths' shop materials, and wrought iron, steam and horse whelm kibbles, account-house furniture. The agent on the mine will show the property.—For information, apply to Mr. JON. BURGESS, the purser, Barncoose Farm, Redruth.—June 18th, 1867.

GLoucestershire.—PRELIMINARY ADVERTISEMENT.
VALUABLE FREEHOLD ESTATE AND MINERALS.
In the months of August or September next, will be OFFERED FOR SALE, BY AUCTION (unless disposed of in the meantime by private contract), a

VALUABLE FREEHOLD ESTATE, called "BARR'S COURT,"
Situate in the parish of BITTON, within three and a half miles of the City of Bristol, one mile of the Warmley Station of the Bath and Mangotsfield branch of the Midland Railway, and two miles of the Keynsham Station of the Great Western Railway.

The estate, which comprises about 350 acres of very rich pasture, orchard, and arable land, is divided into several farms, with good farmhouses and considerable farm and outbuildings.

The MINERALS under the estate are leased to very responsible tenants, and are now being worked, and may be purchased with the estate or separately, comprising all forming part of the BRISTOL COAL FIELD.

Plans and particulars, with the report of an eminent mining engineer upon the coal and other minerals, may be seen, and further information obtained, on application to Messrs. G. C. ASHMEAD and SON, Land Agents and Surveyors, Small-street, Bristol; or to Messrs. WHITTINGTON and GRIBBLE, Solicitors, 11, Clare-street, Bristol.

TO BLAST-FURNACE PROPRIETORS, AND OTHERS.
FOR SALE, BY PRIVATE CONTRACT, ONE BLOWING
ENGINE, 8 ft. 4 in. stroke, with cylinder 40 in. diameter, also with blowing cylinder 8 ft. diameter and 8 ft. 4 in. stroke, fitted with pump for raising water from a well, and force-pump for feeding boilers. This engine was made by Messrs. Aikin and Co., of Glasgow, in 1859, and has only been worked three years.

Also, ONE HORIZONTAL HOIST ENGINE, 2 ft. 6 in. stroke, and cylinder 14 in. diameter, fitted with plinon 16 in. diameter and 8½ in. broad; one pair of wheels 7 ft. 8 in. diameter and 8½ in. broad; one pair of drums, 7 ft. 8 in. diameter, and shaft; two cast-iron pulleys, 6 ft. diameter, and one pulley, 3 ft. diameter, with iron arms; together with guides, ropes, and cages, &c.

FOUR SINGLE-TUBE CORNISH BOILERS, each 30 ft. long and 6 ft. diameter, and TWO PLAIN CYLINDRICAL BOILERS, each 40 ft. long and 6 ft. diameter. Each of these boilers are fitted with steam and feed-pipes, safety valve, blow-off valves; also floats, dampers, steam and water-pipes of various sizes.

ONE WROUGHT-IRON WATER TANK, 55 feet long, 30 feet wide, and 2 feet 10 inches deep.

Also, about 160 ft. of AIR TUBING, 5 ft. diameter, made of 3-16th in. plates. EIGHT STOP VALVES, for heating stove plates, and SIX CAST-IRON TUBES, 9 ft. for the same, 9 ft. long and 14 in. diameter; also 142 HEATING STOVE PIPES.

EIGHT SLAG BOGIES, SIX FLAT BOGIES, and FOUR SLAG CARS, several BARROWS, &c.

ONE SECOND-HAND six-wheel coupled LOCOMOTIVE and TENDER, with 14½ in. cylinder, and 18 in. stroke.

Also, the WORKING APPARATUS of SIXTY COKE OVENS, consisting of 120 cast-iron balance weights for doors, 120 cast-iron pulleys 14 in. diameter, 120 wrought-iron spindles 9 ft. long, 1½ diameter, 60 cast-iron frames, one double-power winch for drawing coke ovens, &c.

Application to be made to Mr. JOHN DAGLISH, Londonderry Offices, Seaboard Harbour.

FOR SALE, and may be seen at the Ashburton Mines, ONE
56 in. PUMPING ENGINE, with TWO 11 ton CORNISH made BOILERS, ONE 40 in. PUMPING ENGINE, only made a short time, and as good as new, with an 11 ton BOILER. A 24 in. WHIM ENGINE, with stamps attached, 10½ in. 11 ton BOILER. Several WATER-WHEELS of various sizes, one with a very excellent drawing machine attached. Pumps and materials of all sorts, &c.—Application may be made to Mr. W. MATHEWS, engineer, Tavistock, or may be seen on application to people in charge of the mine.

ROCHSOLES GAS COAL.
Rochsoles Gas Coal, yielding 12,000 cubic feet of gas per ton.
Price, in trucks, Airdrie Station, 25s. per ton; and 27s. 6d. f.o.b. Glasgow, or East Coast of Scotland. For analysis, &c., apply to—
JAMES STRUTHERS,
ROCHSOLES COLLIERY, AIRDRIE.

UTILISATION OF COAL DUST.
BARKER'S PATENTS.
THE LONDON PATENT COAL COMPANY (LIMITED)

Having arranged with the patentee for the exclusive right to these patents within the United Kingdom, desire to call the attention of coal owners, iron masters, and others, to the value of the invention by which the waste and small coal can, by a simple and inexpensive process, be rendered available for all the ordinary uses of the coal from which it is derived.

A series of careful experiments have been made on the Monmouthshire Railway with fuel manufactured from the Risca Black Vein Coal (small) in locomotives working heavy mineral trains over severe gradients, by which it has been ascertained that increased duty was obtained from the fuel over the same coal. The results of these experiments are so satisfactory that Mr. Alex. Bassett, C.E., of Cardiff, has consented to act as the company's representative for granting licences in South Wales, and will be happy to reply to all enquiries and give explanations respecting the trials that have been made under his supervision.

Mr. Thomas D. Clark, of Birmingham, has also undertaken to represent the company in the Midland Counties, and large works are in course of erection in the Forest of Dean by the company's licensees there.

The company are prepared to grant licenses for the use of their patents, and from the success which has attended the manufacture at their own works, and the extraordinary popularity of the fuel for retail purposes amongst the lower classes, they believe that in every populous town a large and highly profitable trade may be carried on.

The cost of the ingredients used in the manufacture does not exceed 1 p. per ton; they contain no pitch, tar, or other noxious substance, and the manufacture is not more expensive than ordinary brick-making.

The blocks are available for every purpose of ordinary coal, and show in one-fourth less space (1 ton of fuel occupying 33 cubic feet only, as against 42 in ordinary measurement for coal).

The cost of the machinery, &c., necessary for the production of 100 tons daily will not exceed £700.

Experiments have for some time past been in progress at Woolwich with the view to render petroleum and other analogous oils available for use under steam boilers. The patentee's attention being directed to this fact, he found that the company's fuel, being porous, would rapidly absorb these oils, 1 ton of fuel taking up 50 gallons. This absorption does not in any way affect the solidity of the blocks, and it is believed they are the best medium for the purpose yet discovered, and that the fuel oil bricks will be an immense advantage to ocean steamers and vessels of war, on account of the vast saving in stowage and their non-producing powers. The Admiralty have just granted permission for an official trial of the company's fuel to be made at Woolwich.

The value of the company's patents to all coal owners must be at once apparent. It is also of especial value to ironmasters, and where the slack is used for coking purposes, the process may be adopted to advantage in roughly amalgamating the coal into blocks before placing it in the ovens. These blocks require no previous drying, and produce more coke and of better quality.

The company will be happy to receive specimens of coal dust at their South Fleet Works, which will be manufactured and reported upon free of charge, and they will send a competent person to manufacture a small quantity of fuel at any colliery where the experiments may be desired.

For further particulars respecting license, terms, &c., apply to the company's representatives in their respective districts, or to The Managing Director, 26, Martin's-lane, Cannon-street, E.C., London.

By order,
EDWIN W. GLOVER, Secretary.

FRANCE AND BELGIUM.
BARKER'S FUEL PATENTS.

For all information apply by letter to HAMMOND and SON, No. 26, Cornhill, London.

THE DELERY GOLD MINING COMPANY.
GENERAL OFFICES:
No. 74, CEDAR STREET, NEW YORK; and No. 46, PETER STREET, QUEBEC, CANADA.

This company has PURCHASED all the MINERAL RIGHTS on the Seigniorie of RIGAUD-VAUREUIL, in the Province of QUEBEC, and about June 1 will COMMENCE PRACTICAL OPERATIONS, by making mineralogical surveys, by shafting and tunnelling the quartz ledges, and by testing the quality of the rock in their stamp-mill just completed. The area of the Seigniorie is 100 square miles, and the quartz veins are of unusual width and extent, furnishing a basis for the profitable employment of large amounts of capital in separate operations; and as fast as the company's surveys and tests shall show the best locations for new mines, they will furnish maps, and propose liberal terms to parties desiring to develop mines on their own account. Contracts are now being made for the working of Placer Mines, which have already been abundantly proven to be of great richness.

THE MINING SHARE LIST.

BRITISH DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Business.	Total divs.	Per share.	Last paid.
500	Adelphi Edge, c. Cheshire	10 0 0	—	—	8 12 8	0 5 0	Jan. 1867
200	Botalack, t. c. St. Just	91 5 0	—	170 180	488 15 0	0 5 0	May, 1866
4000	Brookwood, l.	1 11 0	—	—	0 5 0	0 2 6	Sept. 1866
1000	Bromford, l. Cardigan	12 0 0	—	—	8 7 0	0 6 0	Aug. 1866
6400	Cashwell, l. Cumberland	2 10 0	—	—	0 1 6	0 1 6	Aug. 1866
916	Cargill, s. l. Newlyn	18 5 7	—	10 12	13 15 0	1 0 0	Feb. 1866
1867	Cwm Erbin, l. Cardiganshire	7 10 0	—	—	23 15 0	1 0 0	April 1867
128	Cwmystwith, l. Cardiganshire	60 0 0	—	—	379 10 0	3 0 0	Jan. 1867
280	Darwent Mines, s. l. Durham	300 0 0	—	—	169 10 0	2 10 0	May 1867
1024	Devon Gr. Consols, c. l. Tavistock	1 0 0	425	415 425	1060 0 0	6 0 0	May 1867
358	Dolcoath, c. l. Camborne	128 17 6	—	—	828 10 0	3 0 0	June 1867
6144	East Caradon, c. St. Cleer	2 14 6	6	5% 6%	14 9 0	0 2 0	April 1867
300	East Darren, l. Cardiganshire	32 0 0	—	—	140 10 0	2 0 0	Mar. 1867
128	East Rose, c. l. Pool, Illogan	24 5 0	—	—	402 10 0	5 0 0	May 1867
5000	East Rosewarne, c. l. Gwinnar	2 15 0	—	78. 98.	0 10 0	1 6 0	Jan. 1866
1906	East Whal, l. Wendron	3 9 0	—	8% 7% 8	2 15 0	0 7 6	Mar. 1867
2800	Foxdale, l. Isle of Man	25 0 0	—	—	79 0 0	0 5 0	Feb. 1866
5000	Frank Mills, l. Christow	3 18 6	—	1% 4	3 5 0	0 5 0	Mar. 1867
5000	Great Laxey, l. Isle of Man	4 0 0	19	19 20	6 5 0	0 10 0	Mar. 1867
5008	Great Wheal Vor, t. c. Helston	40 0 0	20	18 19	11 13 0	0 7 6	June 1867
1024	Herodsfoot, l. near Liskeard	8 10 0	37% 35 27	—	40 10 0	1 10 0	Feb. 1867
6000	Hingston Down, c. l.	5 10 6	—	—	0 10 0	0 5 0	Apr. 1867
400	Lisburne, l. Cardiganshire	18 15 0	—	—	489 10 0	3 0 0	Mar. 1867
9000	Marke Valley, c. l. Caradon	4 10 6	5	4% 5	3 14 0	0 3 0	Apr. 1867
3000	Minera Boundary, l. Wrexham	1 0 0	—	—	0 13 0	0 2 0	Mar. 1866
1800	Minera Mining Co. l. Wrexham	25 0 0	—	—	212 13 0	4 0 0	Jan. 1867
20000	Mineral Co. of Ireland, c. l. Ch.	7 0 0	18	16	0 6 0	0 2 6	Jan. 1866
40000	Mynydd Iron Ore	3 5 0	—	—	157 10 0	5 0 0	Jan. 1867
200	Parys Mines, c. Anglesey	50 0 0	—	2 2%	0 5 0	0 5 0	Feb. 1867
6000	Prosper United, t. c. St. Hilary	8 14 0	—	29 30	82 17 6	0 10 0	May 1867
1120	Providence, t. l. Uny Lelant	10 6 7	30	—	536 10 0	6 0 0	May 1867
512	South Caradon, c. St. Cleer	1 5 0	360	—	0 5 0	0 2 6	Mar. 1866
6000	South Darren, l.	3 6 0	—	13 14	18 11 0	0 5 0	Jan. 1867
6000	Tincroft, c. l. Pool, Illogan	11 10 0	—	—	11 5 0	0 5 0	Jan. 1867
2000	Trumpet Cons., t. Helston	10 0 0	70	66 68	19 7 6	0 5 0	May 1867
3000	W. Chiverton, l. Perranzabuloe	10 0 0	145	145 155	473 0 0	1 0 0	June 1867
400	West Wheal Seton, c. Camborne	47 10 0	155	68 70	623 0 0	1 0 0	June 1867
512	Wheal Bassett, c. l. Illogan	5 2 6	72% 68 70	—	300 10 0	0 10 0	Nov. 1866
1024	Wheal Friendship, c. l. Tavistock	20 0 0	—	—	3 10 0	0 2 0	Feb. 1867
4295	Wheal Kitty, t. St. Agnes	5 4 6	—	14 15	61 15 0	0 15 0	June 1867
1024	Wheal Mary Ann, l. Menheniot	8 0 0	—	—	1 0 0	0 10 0	Feb. 1866
20 10	Wheal Rose, c. l. Scorrier	58 10 0	122% 117 120	—	244 5 0	2 10 0	June 1867
536	Wheal Seton, t. c. Camb.	5 17 0	—	8% 9%	54 14 0	0 4 0	June 1867
1040	Wheal Trelawny, s. l. Liskeard	0 5 0	—	—	0 10 0	0 10 0	June 1867
3000	Whitwell Lead, Clitheroe	2 10 0	—	21%	46 15 0	1 0 0	April 1867
17000	Wicklow, c. l. Wicklow	2 10 0	—	—	—	—	—

FOREIGN DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Business.	Total divs.	Per share.	Last paid.
5000	Cape Copper Mining, s. l. Brazil	7 0 0	—	7 8	0 12 6	0 10 0	April 1866
25000	Fortuna, l. Spain	0 14 0	—	4% 4%	0 4 3	0 1 6	June 1867
70000	English and Australian, c.	2 0 0	—	—	1 13 0	0 1 0	Feb. 1867
20000	Gen. Mining Assoc., Nova Scotia	20 0 0	—	—	22 0 0	1 0 0	June 1866
10000	Gonnes, l. s. [5000 £5 pd., 5000 £4 pd.]	—	—	—	7% per cent. per annum.	—	—
15000	Linares, l. Spain	3 0 0	—	—	11 6 4	0 5 0	Jan. 1866
50000	Panulicillo, c. l.	3 0 0	—	2%	10 per cent.	—	Yearly.
9000	Peel River Land and Mineral	2 10 0	—	3% 3%	0 2 6	0 2 6	Ma. 1867
30000	Pestana, c. l.	20 0 0	—	—	0 16 6	0 1 0	Jan. 1867
10000	Port Phillip, c. l. Clunest	1 0 0	—	—	0 16 6	0 1 0	Jan. 1867
120000	Scottish Australian Mining Co. l.	1 0 0	—	—	7% per cent.	—	—
11000	St. John del Rey, Brazil	15 0 0	63	64 68	77 5 0	4 10 0	June 1867
50000	Victoria (London) [25000 £1 pd., 25000 £2 pd.]	—	—	—	0 9 0	0 10 0	Jan. 1866
40000	West Canada Mining Company	1 0 0	—	—	0 19 6	0 2 6	May 1866

NON-DIVIDEND FOREIGN MINES.

Shares.	Mines.	Paid.	Last Pr.	Business.	Total divs.	Per share.	Last paid.
50000	Alamillos, l. Spain	2 0 0	—	1%	—	—	—
100000	Anglo-Brazilian, c. l.	0 10 0	—	1% 1%	—	—	—
12500	Anglo-Italian, c. l.	0 5 0	—	—	—	—	—
20000	Australian, c. l. South Australia	7 7 6	—	—	—	—	—
40000	Britannia Silver-Lead Mines, France [15750 £88. pd.]	—	—	—	—	—	—
2464	Burra Burra, c. l. South Australia	1 12 0	—	—	—	—	—
25000	Capula, s. l. Mexico	4 0 0	—	—	—	—	—
40000	Chontal, s. l. Nicaragua	43 10 0	—	—	—	—	—
12000	Cobre Copper Company, c. l. Cuba	16 10 0	—	—	—	—	—
10000	Copio Mining Company, Chile	10 0 0	—	—	—	—	—
10000	Copio Smelting, Chile	10 0 0	—	—	—	—	—
300	Copper Mines' Co. of South Australia [150 £100 pd.]	2 15 0	—	—	—	—	—
25000	East del Rey, c. l. Brazil	5 0 0	—	—	—	—	—
15000	El Chico Silver Mining and Reduction Company	5 0 0	—	—	—	—	—
8000	English and Canadian Mining Company	5 0 0	—	—	—	—	—
40000	Fortune Copper Mining Co. of Western Australia	1 15 0	—	—	—	—	—
50000	Frontino and Bolivia, c. l. New Granada	1 15 0	—	—	—	—	—
10000	Great Barrier Land, Mining, c. l. New Zealand	5 0 0	—	—	—	—	—
60000	Great Northern, c. l. South Australia	1 11 6	—	—	—	—	—
68000	Kapunda Mining Co., Australia	1 0 0	—	—	—	—	—
7927	Lusitanian (Portugal) l.	3 0 0	—	—	—	—	—
85000	Marquita	0 12 6	—	—	—	—	—
12500	Nerbudda Coal and Iron [5000 £5 pd., 6500 £4 pd.]	—	—	—	—	—	—
51000	New Quebrada, c. l. Venezuela	3 10 0	—	—	—	—	—
50000	Nova Scotia Land and Gold	1 15 0	—	—	—	—	—
15000	Orea, c. l. New Zealand	2 0 0	—	—	—	—	—
10178	Rhenish Consolidated, l. [5000 £5 pd., 4178 £2108 pd.]	0 10 0	—	—	—	—	—
50000	Rossa Grande, c. l. Brazil	4 0 0	—	—	—	—	—
15000	San Pedro del Monte, s. l. Mexico	4 0 0	—	—	—	—	—
10000	San Roque, l. Spain	5 0 0	—	—	—	—	—
43174	United Mexican, s. l. Mexico	28 5 0	—	—	—	—	—
10000	Vancouver, c. l.	6 0 0	—	—	—	—	—
4000	Val Sassam, c. l. Italy	6 10 0	—	—	—	—	—
45000	Vitor Emanuel, c. l. Italy	1 0 0	—	—	—	—	—
5000	Washoe, c. l.	2 0 0	—	—	—	—	—
80000	Worthing, c. l. South Australia	1 0 0	—	—	—	—	—
75000	Yorke Peninsula, South Australia	1 0 0	—	—	—	—	—
45000	Yudanumutana, c. l. S. A.	3 0 0	—	—	—	—	—

BANKS AND FINANCIAL COMPANIES.

Shares.	Banks.	Paid.	Last Pr.	Business.	Total divs.	Per share.	Last paid.
40000	Alliance	25 0 0	—	16% 16 16%	—	—	—
40000	Australian Mort. Land and Finance	5 0 0	—	—	—	—	—
30000	Australasian	40 0 0	—	64 67 69	—	—	—
10000	Bank of Egypt	25 0 0	—	35 34 36	—	—	—
50000	Bank of New Zealand	10 0 0	—	19% 20%	—	—	—
25000	Bank of Otago	10 0 0	—	6%	—	—	—
20000	Bank of Victoria, Australia	25 0 0	—	38 40	—	—	—
20000	British North American	50 0 0	—	53 54 56	—	—	—
2915	Canada Company	32 0 0	—	55 58 68	—	—	—
50 300	Canadian Loan and Investment	2 10 0	—	—	—	—	—
40000	Chartered Bank India, Australia, and China	20 0 0	—	18% 20 21	—	—	—
30000	Chartered Merc. of India, London and China	25 0 0	—	32 30 32	—	—	—
50000	City	10 0 0	—	13% 14 16	—	—	—
20000	Colonial	25 0 0	—	38 39 41	—	—	—
40000	Company of African Merchants	3 0 0	—	3% 3 3%	—	—	—
150000	Consolidated Bank	4 0 0	—	4% 4% 4%	—	—	—
50000	ditto	4 0 0	—	4% 4% 4%	—	—	—
20000	Credit Foncier and Mobilier of England	5 0 0	—	3% 3% 3%	—	—	—
20000	East London	5 0 0	—	3% 3% 3%	—	—	—
30000	English, Scottish, & Aust. Chart.	20 0 0	—	17 18 19	—	—	—
20000	English and Swedish	25 0 0	—	—	—	—	—
20000	Imperial Bank	20 0 0	—	23% 24%	—	—	—
202500	International Bank	10 0 0	—	9% 9%	—	—	—
300000	International Land Credit	6 0 0	—	—	—	—	—
50000	London Chartered Bank of Australia	20 0 0	—	24 25 25%	—	—	—
37500	London and County	20 0 0	—	57 59 60	—	—	—
40000	London Financial Association	30 0 0	—	9 9	—	—	—
72000	London Joint-Stock	15 0 0	—	43 43 45	—	—	—
5000	London and River Plate	10 0 0	—	45 47	—	—	—
20000	ditto	10 0 0	—	13 11 12	—	—	—
20000	ditto	10 0 0	—	—	—	—	—
10000	London and South-Western	20 0 0	—	96 106 108	—	—	—
5000	London and Venezuela	12 10 0	—	—	—	—	—
50000	Mercantile and Exchange	20 0 0	—	—	—	—	—
10000	Mercantile	25 0 0	—	16 16	—	—	—
5000	ditto	20 0 0	—	—	—	—	—
17156	Metropolitan and Provincial	20 0 0	—	19% 19 19%	—	—	—
5000	Midland	4 0 0	—	—	—	—	—
20000	National of Australia	15 0 0	—	14 14	—	—	—
20000	National of Liverpool	15 0 0	—	—	—	—	—
10000	National Provincial of England	42 0 0	—	—	—	—	—
55000	ditto	12 0 0	—	—	—	—	—
40000	National	30 0 0	—	63 60 62	—	—	—
50000	New South Wales	20 0 0	—	45 46 48	—	—	—
60000	Oriental Bank Corporation	25 0 0	—	44 44 44	—	—	—
27210	Provincial Banking Corporation	25 0 0	—	4% 4%	—	—	—
20000	Provincial of Ireland	25 0 0	—	—	—	—	—
10000	ditto	10 0 0	—	—	—	—	—
40000	Union of Australia	25 0 0	—	—	—	—	—
10000	Union of Ireland	25 0 0	—	—	—	—	—
80000	Union of London	15 0 0	—	41 40 41	—	—	—

PROGRESSIVE MINES.

Shares.	Mines.	Paid.	Last Pr.	Bus. done.	Last call.
4000	Ballacorkish, l. of Man, t. c.	2 0 0.	—	—	Jan. 1866
3000	Bellod Unit, c. l. Tavistock	2 6 8.	—	14.	—
1031	Bedford Aur. t. l. Holywell	1 12 0.	—	—	May 1866
500	Billins, l. Flint	30 0 0.	—	—	Fully pd.
1248	Boscawell, t. c. St. Just	7 6 0.	—	—	Dec. 1866
6000	Bottle Hill, t. Plympton	1 14 6.	—	—	Jan. 1866
300	Bryndorf Hall, l. Flint	28 0 0.	—	—	Jan. 1866
6000	Bryn Gwyl, t. Mold	1 10 0.	—	2	June 1866
1200	Bryn Gwyl, t. Mold	9 0 0.	—	—	June 1866
1000	Budnick Consols, c. t.	—	—	—	—
30000	Calbeck Fells, l. Cumber.	1 10 0.	—	—	Dec. 1866
1000	Camborne Consols, c.	18 0 0.	—	—	Feb. 1866
4600	Camborne Vn. & Wh. Frn.	11 12 1.	—	—	Mar. 1866
11000	Cape Cornwall, t. c. [8000 £2 10s. pd., 3000 10s. pd.]	—	—	—	Oct. 1866
914	Caradon Cons., c. St. Cleer	32 5 6.	—	—	Feb. 1866
1200	Carb Brea, c. t. Illogan	28 5 0.	—	13 15	May 1866
6000	Carb Camborne, c. Cambn.	—	—	—	Apr. 1866
5000	Carbargonshire, t.	4 0 0.	—	—	Fully pd.
4005	Cardigan Cons. [1000 £5 pd., 3005 £4 5s. pd.]	—	—	—	Apr. 1866
600	Cardiganshire, t.	17 10 0.	—	—	Sept. 1866
20000	Carysfort [3200 £2 10s. pd., 16800 £1 10s. pd.]	—	—	—	Mar. 1866
2500	Cefn Cilceon, l. Flint	2 18 0.	—	—	Nov. 1866
2500	Central Miner, l.	12 6 0.	—	—	Aug. 1866
16000	Central Snailbeach, t.	1 7 6.	—	6 1/2	Fully pd.
3000	Chertsey, t. Perran	6 6 0.	5 1/2	5 1/2	May 1866
3000	Chiverton Moor, t. Perran	6 6 0.	5 1/2	5 1/2	May 1866
4000	Clara, l. Llywrog	2 16 6.	—	—	May 1866
2880	Clifford Amalg., c. Gwenf.	33 17 6.	5 1/2	7 1/2	June 1866
256	Condarrow, c. t. Camborne	76 10 0.	—	20 22	—
50000	Connores, c. s. & d. Wicklow	1 0 0.	—	—	Fully pd.
2430	Cook's Kitchen, c. Illogan	19 10 0.	10	9 1/2 10	July 1866
1204	Copper Hill, c. Redruth	12 14 0.	—	—	June 1866
1000	Cornish Clay and Tin	—	—	—	Fully pd.
1055	Cradock Moor, c. Redruth	12 6 0.	—	—	May 1866
861	Crane, c. Camborne	33 9 0.	—	—	Dec. 1866
12000	Crelake, c. Tavistock	3 12 0.	—	—	June 1866
3000	Cuddra, t. St. Austell	5 0 0.	—	—	Oct. 1866
35000	Dale, l. North Stafford	1 0 0.	—	—	Fully pd.
4000	Devon Wheel Frances, c.	1 5 0.	—	—	Mar. 1866
1024	Dev Wh. Lopes, Bickelgh	18 10 0.	18 1/2	18 1/2	Mar. 1866
12800	Drake Walls, t. Calstock	2 5 0.	—	1 1/2 3/4	Dec. 1866
306	Ding Dong, t. Guisalt	—	—	—	Dec. 1866
25000	Dundalk, l. Ireland	0 15 0.	—	—	Feb. 1866
3000	Dyffrynwg, t. Wales	13 7 0.	—	—	June 1866
740	Eaglebrook, t.	19 15 0.	—	—	July 1866
512	East Bassett, c. Redruth	29 10 0.	18	16 17	—
1000	East Bassett and Grylls, t.	3 5 0.	—	—	July 1866
6000	E. Bottle Hill, t. Plympton	0 9 6.	—	—	May 1866
4096	East Brookwood, Holne	2 8 8.	—	—	July 1866
6000	E. Carn Brea, c. Redruth	3 15 0.	—	—	—
4000	East Chiverton, l. Perranz	2 11 0.	—	—	Mar. 1866
6000	E. Gennalsk, c. Cambn.	9 7 6.	2 1/2	2 1/2	Feb. 1866
4000	E. Gennalsk, c. S. Bed. c.	9 7 6.	—	—	June 1866
6000	East Laxey, l. Isle of Man.	2 15 0.	—	—	Dec. 1866
6000	East Neptune, c. Marazion	1 0 0.	3	2 1/2 3	—
3986	E. Providence, t. Uny Lel.	5 1 9.	—	—	Feb. 1866
6000	East Snafell, l. I. of Man	2 0 0.	—	—	Dec. 1866
5610	East Seton, c. Camborne	0 13 6.	—	—	Nov. 1866
9000	E. St. Just, t. [6000 £3 10s. pd., 3000 £1 10s. pd.]	—	—	—	May 1866
1265	East Torsus, c. Redruth	96	—	—	Apr. 1866
1130	E. Wh. Armar, t. St. Austell	12 17 0.	—	—	Jan. 1866
5000	E. Wh. Rose, c. l. Per.	2 0 0.	1 1/2	1 1/2	—
4000	E. Wh. Russell, Tavistock	12 1 6.	2 1/2	2 2 1/2	Apr. 1866
6000	Fortescue Consols, c.	0 12 6.	—	—	—
940	Fowey Con., c. Tywardreath	5 4 6.	—	—	Feb. 1866
6000	Furze Hill Wood Co. Buckl.	1 16 0.	—	—	Feb. 1866
10000	Furdon, c. [5000 £1 10s.]	—	—	—	Mar. 1866
4096	Gardina Unit, t. Wendron	5 7 7.	—	—	Mar. 1866
4000	Gawton, c. Tavistock	3 1 6.	—	—	May 1866
1000	Gen. Min. l. St. Austell	—	—	—	—
40000	Glasgow Caradon c. [30000 £1 pd., 10000 10s. pd.]	—	—	—	Sept. 1866
7500	Goginan, l.	12 10 0.	—	—	Apr. 1866
6144	Gonamena, c. St. Cleer	6 1 0.	—	—	June 1866
6000	Gothic, s-l, Cardigan	2 10 0.	2 1/2	2 1/2	Fully pd.
486	Grambler and St. Aubyn	71 0 0.	5	4 1/2 5	Mar. 1866
10000	Great Cwmynog, s-l	1 0 0.	—	—	May 1866
4096	Great Caradon, c. St. Ive.	3 13 0.	—	—	Feb. 1866
3000	Great Chiverton, s-l	1 0 0.	—	—	Nov. 1866
3000	Great East L. of Man	2 0 0.	—	—	—
5000	Great Mona, l. Isle of Man	3 10 0.	—	—	June 1866
2500	Great North Downs, c.	6 13 0.	4	3 1/2 3 1/2	Feb. 1866
5000	Gt. No. Laxey [Isle of Man]	0 12 6.	—	—	Jan. 1866
4800	Great Retallack, s-l, b	2 5 0.	4 1/2	4 1/2 5	Apr. 1866
6000	Great South Chiverton, s-l	1 2 0.	—	—	May 1866
6000	Gt. So. Tolgus, c. Redruth	1 4 0.	—	—	June 1866
3313	Great Wheel Badden, t.	7 17 6.	—	—	June 1866
1798	Gt. Wh. Fortune, t. Breage	27 14 6.	3	2 1/2 3	Mar. 1866
1024	Guano Works, c. German	—	—	—	—
4200	Gunnislake (Cliff), t.	4 19 0.	—	—	Apr. 1866
6068	Gwydyr Park, l. Kenwyn	1 13 6.	—	—	June 1866
1000	Hallenbeagle, c. Llanrwst	2 17 0.	—	—	Apr. 1866
6400	Harwood, l. Durham	0 6 0.	—	—	Sept. 1866
5000	Havan, l. Cardigan	4 15 0.	—	—	Mar. 1866
6000	Lady Bertha, c. Tavistock	4 0 0.	—	—	May 1866
1019	Leeds and St. Aubyn, t. c.	19 13 4.	—	—	Mar. 1866
169	Levant, c. St. Just	10 8 1.	—	—	June 1866
1024	Levy Consols, t.	—	—	—	—
3000	Loss-y-Safran	20 0 0.	—	—	Jan. 1866
6000	Mandlin, c. Lostwithiel	4 7 0.	—	—	May 1866
640	Monnt Pleasant, l. Mold	4 0 0.	—	—	—
12024	Nangles, t. c. Kea	27 5 0.	—	—	Feb. 1866
28000	Nether Heath's [6400 £1 pd., 6400 2s. pd.]	—	—	—	—
8000	New Birch Tor & Vitrifer, t.	1 6 6.	—	—	—
5000	New Clifford, c. Gwennap	2 10 0.	—	—	May 1866
4000	New Cornish [12000 £1 pd., 12000 15s. pd.]	—	—	—	Sept. 1866
1000	N. Crow Hill, l. St. Stephen	3 2 0.	—	—	Nov. 1866
5314	N. E. Russell, c. Tavistock	—	—	—	Apr. 1866
4000	New Hendra, c. Breage	14 11 0.	—	—	Mar. 1866
5000	New Pembroke, t.	1 2 6.	—	—	Mar. 1866
5755	New Treleigh, c. Redruth	4 8 0.	—	—	May 1866
960	New Trevenen, t. Wendron	8 14 0.	—	—	May 1866
3729	New Wheel Lovell, t.	1 15 0.	—	—	May 1866
400	New Wh. Seton, c. Cambn.	56 5 0.	50	—	Apr. 1866
3000	New Wheel Towan, c. t.	1 10 0.	—	—	July 1866
6000	North Devon, s-l	0 18 0.	—	—	July 1866
6000	No. Dolcoath, c. Camborne	—	—	—	—
3437	North Downs, c. Redruth	4 16 4.	—	—	June 1866
1000	No. Grambler, c. Redruth	6 19 3.	—	—	Dec. 1866
6000	N. Hallenbeagle [9000 £1 pd., 3000 8s. 6d. pd.]	—	—	—	July 1866
6000	North Jane, t. s-l, Kenwyn	3 1 6.	—	—	Mar. 1866
6000	North Levant, t. c. St. Just	10 12 0.	—	—	Apr. 1866
6000	Nth. Miner, l. Wrexham	1 0 0.	—	—	Fully pd.
6096	N. Phoenix, c. Llokinhorne	4 2 6.	—	—	May 1866
9333	North Pool, c. Illogan	5 16 0.	—	—	Mar. 1866
6000	North Retallack, t.	—	—	3 1/2	Feb. 1866
935	No. Roekak, c. Camborne	61 13 0.	—	4 1/2 5	May 1866
6000	North Shepherds, t.	10 0 0.	—	—	May 1866
9336	No. Treskerby, c. St. Agnes	1 9 0.	1 1/2	1 1/2 1 1/2	—
6000	North Wheel Bassett, c. ft.	5 0 0.	—	—	Apr. 1866
610	North Wheel Crofty, c.	3 11 3.	4 1/2	3 1/2 3 1/2	July 1866
144	North Wh. Chiverton, l.	4 0 0.	—	—	Mar. 1866
128	N. Wh. Robert, Smp. Spiney	4 8 11.	—	—	Mar. 1866
6000	Ozel Tor, c. Calstock	2	—	—	Aug. 1866
6000	Okehampton	1 10 0.	—	—	—
6000	Old Gunnislake	2 15 0.	—	—	Mar. 1866
6000	Old Westminster, Denbigh	2 0 0.	—	—	June 1866
4000	Par Consols, c. St. Blazey	2 7 0.	—	—	Mar. 1866
465	Pedin-an-drea, t. Redruth	6 2 6.	—	—	May 1866
6000	Penden Consols, c. St. Just	6 3 0.	—	—	May 1866
640	Penhale Wheel Vor, t. c.	8 7 6.	—	3 1/2 3 1/2	Apr. 1866
6000	Penhalls, t. St. Agnes	3 0 0.	—	—	May 1866
772	Pelberro, t. St. Agnes	13	—	—	Fully pd.
512	Pobber, t. St. Agnes	3 11 0.	—	—	—
6000	Prince Arthur	2 0 0.	—	—	Fully pd.
8000	Prince of Wales, t. Calstock	0 12 6.	3 1/2	3 1/2 3 1/2	Feb. 1866
9000	Redmoor, c. t. Callington	1 11 6.	—	—	Feb. 1866
9000	Reinick Laxey, l. I. of Man	4 0 0.	—	—	Feb. 1866
1024	Rose and Chiverton Un.	5 0 0.	6 1/2	—	Nov. 1866
6000	Rosecliff and Tolcarne, l.	9 0 0.	—	—	Apr. 1866
373	Rosewarke Consols, c.	5 2 6.	—	—	Feb. 1866
9438	Rosewall Hill & Ransom, c.	4 0 0.	2 1/2	2 1/2 2 1/2	Aug. 1866
245	Rosewarke City, t.	4	—	—	Feb. 1866
500	Snafell, l. Isle of Man	1 0 0.	—	—	Fully pd.
4000	Silver Brook, s-l, Carnar.	10 0 0.	—	—	July 1866
996	Sithney Wheel Metal, t.	4 5 6.	—	—	Oct. 1866
8000	Sorridge Cons., c. Tavist.	1 14 6.	—	—	Oct. 1866
512	South Bassett, c. Gwennap	25 10 0.	—	—	June 1866
424	South Callington, s-l, n.	5 17 6.	2	—	Jan. 1866
6000	So. Chiverton, s-l, Perran	8 15 0.	—	—	June 1866
138	South Condurrow, c. t. Camb.	3 5 6.	14 1/2	—	May 1866
283	South Crenner, c. t.	12	—	—	Oct. 1866
924	South Devon, c. t.	3 0 0.	2	—	—
800	S. Dolcoath & Carnarvon Con.	2 16 6.	—	—	Aug. 1866
900	So. Exmouth, l. Christow.	2 17 0.	—	—	Feb. 1866
900	So. Fowey, c. Tywardreath	0 10 0.	—	—	Apr. 1866